CURRENT NOTES

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Vol. 12, No. 4

May 1992
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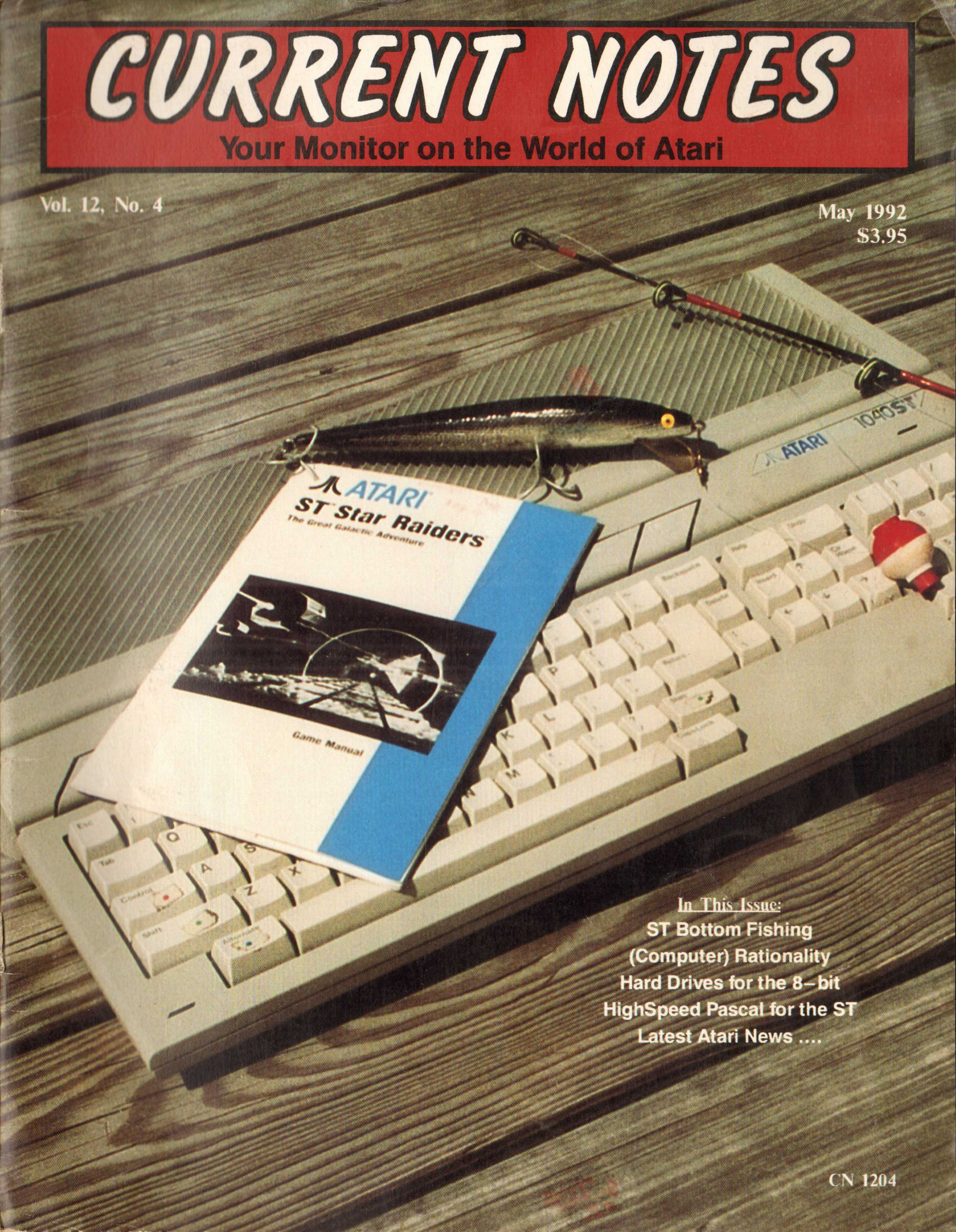

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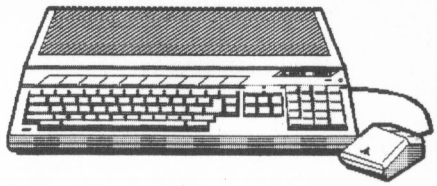

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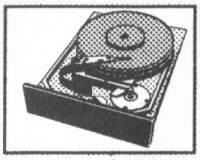

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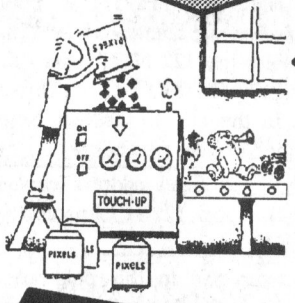

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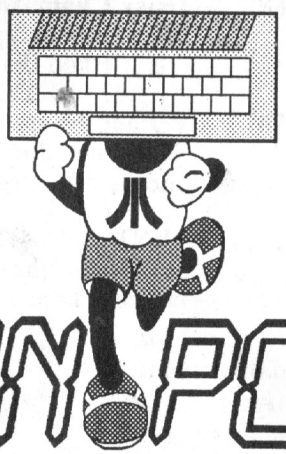

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SPECIAL REPORTS

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NEWS/ANNOUNCEMENTS

DEPARTMENTS

MOVING?

Don't forget to send in a change of address notice if you are moving. *Current Notes* is distributed via second class US mail. The post office does not forward second class publications; they throw them away.

The cover: "Bottom fishing" describes the practice of keeping a perfectly good older system like the ST or Mega TOS 1.0 as long as it meets your needs. In an ever-changing world, it's comforting to honor classics. Photo by Mike Heininger, (c) 1992.

CURRENT NOTES MAGAZINE

Wanted: A Few Good Men and Women...

In its early years, *Current Notes* was a publication from a consortium of Atari User Groups in the Washington, DC, area. While Current Notes, Inc. is now a private venture, publisher Joe Waters and his largely volunteer staff continue to keep their focus on the Atari user. *CN*, as always, is on the lookout for a few good Atarians who would like to help CN enhance its ability to serve more of the Atari community. Perhaps you can help in one of the following areas:

Reviewers - There is always a need for people who can write well and who have the technical competence to evaluate all kinds of Atari software.

Departments - The Telecommunications, MIDI, and Spectre departments have been largely dormant for the last couple of years. People who have an interest in these areas could make a real contribution by sharing their knowledge. All three areas significantly expand the power of the Atari, but present a challenge to novice users. Knowledgeable users could perform a real service by helping to remove some of the mystery from these subjects.

Correspondents - While individual CN staffers make cameo appearances on the online services, there is a real need for people to digest the traffic, analyze trends, and follow up on developing news. While *CN* works with the online magazines in a "wire service" mode, its monthly publication schedule requires better packaging of the news from the services (and from any other source of news, for that matter).

Librarians - *Current Notes*' disk library is perhaps the most comprehensive collection of PD software and shareware available to the community. There is a need for additional help in assembling the material that comes into the community each month, validating it, and providing the additional documentation that is needed for disk distribution.

Joe Waters designated 1992 as the "Year of the Atari User" in the Jan/Feb issue. It seems appropriate to let the user community know that individual contributions to this independent forum, devoted to the interests of the Atari consumer, are more than welcome.

Prospective authors can submit samples of their work to Current Notes (address below) or via GEnie to JOE.WATERS. *Current Notes* can be reached by telephone (voice or FAX) at 703-450-4761. The business office is manned during the day, but editorial matters are best discussed in the evenings and on weekends. Mail should be sent to Current Notes Inc, 122 N. Johnson Rd, Sterling, VA, 22170.

From the Editor's Desk

by Joe Waters

Just Do It!

As you will see in this issue, the Toronto Atari showed proved to be a great success. Show attendees, vendors, Atari, organizers-all were enthusiastic about the event and looking forward to ACE '93.

Over 100 Southern Californians were treated to a technology conference, called GLENCON 2, on March 28, which featured Charles Johnson and John Eidsvoog and included an hour talk and question session by Atari's Bob Brodie.

There are several other shows scheduled for the coming months. There will an Atari show in Milwaukee in June. July will see the Blue Ridge Atarifest, the MIST AtariFest IV, and the Northern California Atari Expo. In August, Atarians out east can attend the Connecticut Atarifest. In September, we will have the Glendale show and in October, the WAACE show.

How do all these things happen? It's simple. Somebody just decides to do it. If John Sheehan and other members of the Toronto Atari Federation had not decided to *do it*, there would have been no Toronto Show. If John King Tarpinian and other members of HACKs had not decided to *do it*, there would be no Glendale technology conferences. Similarly, with all the other events. They happen because somebody decides to *do it* and gets some people together and off they go.

This seems obvious, but it is something that it is easy for people to forget. There are often complaints about all kinds of injustices or inequities or failings or problems or lack of action. But in many cases, all of these can be answered if *somebody* just decides to *do it!*. It is not usually technology, or even money, that stands in the way of progress; it is action.

In my normal job, I was recently discouraged at what seemed to be an inability to keep track of "internal" actions or papers. Without proper records, one could be doomed to repeat the errors of the past over and over. Even if records are there, how easy is it for people to find things? If you can't find the information, it might as well not be there. So, just to prove that such a problem was not impossible, I took a day off and fixed it. Oh, it wasn't the whole problem, of course, but a small part of it. I happened to have, in electronic format, the official minutes of one of the major corporate boards for which I had served as Executive Secretary for the past year or so. I had three years, however, worth of minutes. Why not put those all in a file and make it searchable by word?

I knew of a Mac public domain program called *Browser* whose author happens to work in the same building I do. I had been meaning to call and get a current version of *Browser* for some time. That morning I made the call and got the program. By the end of the day, the project was done. Three years of official minutes, about 500K, were in an electronic database that could easily be searched by word. For any word chosen, a window would show seven lines of text, each with the "word" of interest right in the middle with a bit of the surrounding content right before and after the word. This gives a "browser" a pretty good idea if the information in that sentence is relevant. Clicking on any of these lines fills another window with the full text, which can then be scrolled up or down.

Most of the effort to do this project was involved in preparing the data to be a reasonably consistent text file. I discovered that landing in the middle of some long memo might take a bit of time to scroll up to the top and find out when it was written. So, I adjusted the original documents to number each paragraph in a format that gave the month and year and then a sequential number, i.e. 5.90.1, 5.90.2, ... , 5.90.8 would represent eight paragraphs in a memo written in May of 1990. This change meant that when I found a desired passage, I could also see immediately when it was written and go to that original document if need be.

It only took a day, and the project was done because I decided to do it. Our local scout district needed to raise some funds. My wife, who is the District Commissioner, got together with some other scouters and they decided to have a Scout benefit auction/dance. They then wrote letters, got donations, got a hall, made all of the arrangements, etc., etc. It was a lot of work, but that auction/dance happened and the district boosted its treasury because of it. If they had not decided to *do it*, there would have been no auction/dance.

There are many more examples I can offer. I am sure you all know of some yourself. But the important thing to remember is that, at least in this country, no one is standing in your way. If you want to do something, learn a program, form a club, sponsor an event, set up a business, all you have to do is *do it*. Worrying, complaining, sulking, lying around, dreaming, none of these will get the job done. If there is something that should be done, then there is no reason why you shouldn't be the one to get the job done. Just get up and do it.

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Letters to the Editor

[The following letter came in several months ago and we had not had a chance to get it in. However, it is certainly relevant to the upgrade/new computer decision many readers may be wondering about. Mike Heininger gives you one perspective in his "Bottom Fishing" article and Dave Small gives you yet another in his "Small World" column. David Barkin's story adds more information to the equation. –JW]

I Know I Made the Right Choice!

Dear Current Notes,

I read with interest the renewal of the great "why the heck buy an Atari" question by Frank Sommers in September's issue. This question is of especial interest to me because I just sold my parents into slavery in order to purchase either a TT or Mega STe computer.

While I make a living as a heating repair person, I've started my own graphics business and, to my surprise, am actually making money out of Desktop Publishing. To all those who take their computers seriously, let me relate the following experiences. I am a slow typist and a lousy business person. So, lo and behold, I have a partner in the publishing business. Stefa is a real cracker jack of a secretary, types 80 words a minute, knows how to bamboozle the rich and famous and, best of all, is a whiz at *Word Perfect*. She, unfortunately, owned an IBM XT, so that everything eventually had to be typeset by my lowly Mega4 ST. This, of course, worked just fine and customers and money started to roll in. My partner Stefa had now accumulated cash for a new computer of her own. I advised her to purchase an ST, but let's face it, the propaganda of IBM had sunk deeply into my ST-oriented consciousness and I didn't push it.

Finally, her 386, 16-Mhz rolled in and Stefa acquired a whole bunch of wonderful programs to run on it. Naturally, she asked me over to help her get started. This was an experience out of the Twilight zone. I use ISD's *Outline Art* for vector graphics; now I had the chance to work with *real programs*.

We started with *Draw Perfect* (lists for $459). Somehow or other you couldn't do much with the program. I kept trying to distort text and manipulate text and the options seemed very limited; but worst of all, screen redraws and printing took longer than on my ST. What gives? Well, it seems that these *real programs for real computers* have some real limitations. But then we went to *Coral Draw*. This does, indeed, turn out to be a real program, but very, very slow compared to what I'm used to on the ST. And so it went. The only program that had any advantage over programs on the ST was *Word Perfect 5.1*– Whoop de do.

Windows? Windows is a memory gobbling joke. The best that can be said for it is that it's better than using DOS. DOS did I say DOS? DOS is beyond belief. I am fortunate that the ST was my first computer because otherwise I would have accepted DOS as a great, user friendly system instead of accepting the fact that DOS is a conspiratorial nightmare dreamed up by the KGB to enslave Americans.

I had advised Stefa to get a larger hard drive than my little 20 Meg. Her 40 Meg drive filled up to the brim with 5 programs loaded on it. My 20 Meg ST drive still has space left and is chock full of heavy duty programs. There's even room for 8 megs worth of fonts for *Calamus*.

Well, I went out and started to ask questions about the "Great IBM World." It seems that the IBM world is fundamentally crippled by DOS. DOS is limited to 640K of memory and, more important than that, is limited to 64K chunks of memory at a time. Extended memory is actually a work around and using a heavy duty program is a series of internal work arounds for both the 640K and 64K limitations built into DOS. The 286 chip had this limitation built into the chip itself. The 386 chip is not hardware limited, but since there are millions of 286 machines still up and running, IBM software is written to be downwardly compatible with the older machines. In effect, crippling them. The result, my ST runs heavy duty programs faster than a machine which is, theoretically, four times faster.

To make a long story short, Stefa and I are still partners; she uses her machine to type up manuscripts and then brings them over to me to be typeset. The moral of the story is that I no longer have faith in my ST–*I now know I made the right choice.*

David Barkin
New York, NY

Hard Drive Chaining

Dear Joe,

The March issue was the best yet, especially Andrzej Wrotniak's article on moving on to another machine. It was clear and well-reasoned and convinced me to keep my Atari for a few more years.

I have an old, noisy Atari 20SH hard drive. I am constrained by its small size. It plugs into the computer's HD port, but has no ports on it, so it must be the last device in any sort of chain.

Is there any way to buy another HD and link it in serial (one after another) so I do not lose my investment in my HD?

I know your letters to the editor section does not give technical advice, but perhaps you could toss this question to someone who could help with this.

Paul Adkins
Ft Leonard Wood, MO

[You actually have several options that would allow you to expand and still use your old Atari drive. I faxed your letter to Dave Troy, CN's "Answer Man," and you can find some solutions suggested in his column this month. –JW]

Quicken and AT-SPEED

Dear CN:

I would like to help out your reader who wrote in saying he couldn't get *Quicken* to work with AT-SPEED. I have been using *Quicken 5* with AT-SPEED for a month now and everything works just fine; in fact, it's a positive speed demon compared to my old setup with pc ditto. I have a few suggestions that may help to overcome your problem.

1) The newest version of *Quicken* has its files compressed to fit on the disk. Are you being patient enough? This takes some time.

2) Do you have the latest version of *Quicken 5*? At the main menu screen, press "V" to find out. The latest version is "Release 7."

3) IBM install programs typically check out your system to find out what graphics adaptor you are using as the first step in the install process. Some-

times they can be confused by the emulation and that can lock up the system. This happened to me when installing *Lotus Agenda*. The solution may be to try setting AT-SPEED for a different graphics emulation mode and then trying to install the program. When I had my problem with *Agenda*, it installed in CGA mode, but would lock up in EGA or VGA mode, even though the program itself runs either way. There is a program supplied with AT-SPEED that allows changing the graphic emulation on the fly. You can always use this program in a batch file to switch emulation mode before running a particular program.

4) Maybe you need to try a different DOS. I'm using IBM DOS V3.3, which has never failed me through pc ditto to AT-SPEED.

5) If all else fails, try to install it on someone else's computer. You can always transfer the files one by one rather than use the install program.

I hope one of these solutions works for you. I only wish there was a program as good as *Quicken* on the ST platform so we wouldn't have to jump through hoops to use it. But, suffice it to say, you won't be disappointed—*it works.*

While we're on the subject of AT-SPEED, maybe someone can return the favor and help me out. The accessory version of the program, which allows you to jump back and forth between DOS and GEM, won't work with both *NeoDesk* and *MultiDesk Deluxe* installed. It works with either one alone, but not both. I've spoken to all three companies and they don't have a clue. I've tried all combinations but the only solution seems to be to turn one or the other off, and personally I hate to have to make the choice. It even messes up if *NeoDesk* is activated by hand after everything else is loaded. Anyone out there have a thought?

Ira Deutchman
New York, NY

Three Powerful Word Processors

Dear CN,

Some good software and hardware available in the USA does not reach England, and some of our material does not seem to reach you. In particular, Greg Wrenn's desire for a program that will let him include equations in technical reports is answered by any of the word processors *Signum*, *Calligrapher*, and *Redacteur*.

Signum is a document processor designed specifically for mathematics. It allows seven fonts on-screen (I use Times, Times Italic—which I prefer to the slant usually used—Greek, mathematical symbol, and fraktur) and has a font designer program included (useful for special symbols). Very detailed positional control of symbols is possible, allowing sub-scripts easily. Screen redraws are quite fast, and printing is excellent quality at a reasonable speed (about four minutes for single-spaced A4 on a 24-pin printer). I have used it to produce camera-ready copy for a text-book, and can't imagine any other word processor to do that. It is WYSIWGY, and unless one uses TeX, which is totally non-WYSIWYG, it is the best available for mathematics. One of the main reasons I bought an Atari was that *Signum* only runs on the Atari. I think it is a bit too complex for Greg's needs, though.

Calligrapher, like *Signum*, calls itself a document processor. It allows multiple columns without difficulty. Its fonts are vector fonts, which means that it is easy to use different point sizes. The quality of printing is excellent. It has an equation editor, and there is an add-on providing an "interactive formula editor." Many people like this program very much, and its capabilities are close to DTP. I found the printing (using a version of GDOS) slow, and the screen redraws so uncomfortably slow that I don't like the program.

Redacteur, which I have not tried, sounds most suitable for Greg. Its formula editor is compatible with the (supplied) font editor, and the formula can be included in the current document or saved in .IMG or other formats for use in another program.

Demo versions of *Calligrapher* and *Redacteur* are available, but unfortunately, the demo version of *Redacteur* does not include its formula editor.

Availability. The English distributor of *Signum 2* has closed down, but it may be available from Gate Seven Computers, 6A Gwendwr Rd, London W14 9BG, or from the German developers Applications Systems, Englerstrasse 3, W-6900, Heidelberg. They have the new *Signum 3* in German only. *Calligrapher* is obtainable from Working Title, PO Box 4, Eynsham, Witney, Oxford OX8 1UD, and *Redacteur* from The ST Club, 2 Broadway, Nottingham NG1 1PS. All three programs are quite expensive.

By the way, *Signum* has fonts available for many non-European languages such as Hindi and Hebrew; it even has an add-on to drive the cursor from right to left.

I will be glad to give more information if asked. I can be contacted by e-mail on the internet as daniel maths. qmw. ac. uk

Daniel Cohen
London, England

More on MVG and Piracy

To the Editor

To add a further tidbit to the discussion on piracy, I would just like to make the following point. I know about 20 people with ST computers. Piracy is something discussed *by all of them.* Even the ones that used to steal programs will at the very least no longer admit it. Among the people I know in the IBM and Mac worlds, they don't even know what piracy is. The typical owner will only buy a program if they can't get it from a friend. On the few occasions when I brought up the question about piracy to them, No one was home. They haven't the faintest idea what I'm talking about.

In reference to MVG. I own version 1.3. For over a year and a half I've been writing letters, including SASE, asking how to get an upgrade. I also purchased the module packs to find that some of them need version 2.0 to run. I would like to take this opportunity to announce that MVG (at least version 1.3) is apparently in the public domain. I would like to see the results of "Good old humorous Dr. Bob" take me to court and explain to the judge how I should be prosecuted when he peddles software that won't run with the program he sells. This kind of lack of support for a program is not a reason for piracy, nor is it an excuse for piracy. On the other hand, can giving away his program be called piracy or revenge?

David Barkin
New York, NY

Dear CN Gang:

I am very sympathetic with Ken Springer's letter in the March CN; he considers that he has every right to pirate the new version of Dr. Bobware's MVG after repeatedly attempting without success to order the upgrade.

In fairness, though, I don't think Dr. Bob "was just happy to have [his] money for Modules Disks 1 and 2." I

also repeatedly tried to get upgrade information. Then, at the last WAACE Atarifest, a friend met him, got a newsletter and a free Modules Disk #1 for me, and so I sent in my original disk and a check. In November, *the check had not cleared* my U. S. bank nor, of course, have I received an upgrade (nor a response to a follow-up letter six weeks ago).

I don't have Ken's option and have just given up on the upgrade to a very good program. Maybe we ST users suffer from a Sunnyvale Virus: don't communicate with customers! Certainly *Antic/Start* was that way till they went belly up. If so, it has not affected everyone! Aside from the obvious examples of Codehead and Gribnif, I can mention these as *very* responsive: Gordon Moore (*SuperBoot*), Stuart Webb (SKWare One: *Seurat*), Craig Buchanan (Zocra Technologies: *STipple*, indispensable if you have to deal with the repulsive GIF graphics format) and Craig Harvey (Clear Thinking: *EdHak*). In charity, let us not mention other virus victims.

W. M. Lambert, Jr.
Costa Rica

Mega STe Compatibility

Hi Joe,

I read a number of Atari magazines and I enjoy yours the most. I think the Dave Small articles are some of the brightest and most interesting to be found anywhere.

I'm writing you, however, to request an article. I am a fairly new owner of a Mega4 STe and have found, to my dismay, that many of my old favorite games do not play on this machine. Many of the new games are being written so they will play on it, and some of the old ones by chance can also be played. I have not seen anyone tackle making a list of the yea and nay games for the Mega STe. How about you guys? Thanks for an informative and substantive magazine. I like your new covers.

With respect,
Jim White

Dear Mr. Waters,

I am in the Navy, currently stationed in Naples, Italy. Although Atari is very popular in England, here it's not so easy to find, and when you do find it, it's in Italian. I recently bought a Mega STe and have started running into software compatibility problems. I am not very concerned with games, but some of my more important utilities don't seem to want to cooperate with the new TOS. Namely, *Turtle 3.0* and *Tune-Up 1.25*. I realize these are old versions, and was wondering if there are new ones tested with TOS 2.05. How does Diamond Back stack up? Are there any other hard drive optimizers out besides Tune-Up? I am concerned about losing my data on the hard drive, and the idea of using even TOS 2.05 to back up 50 Megs does not appeal to me. Does anyone have a list of programs that are known to work or not to work with TOS 2.05?

In the games department, I have tried to run *Falcon*, *Populous*, *Techno Cop*, and *Star Trek the Rebel Universe* without success. Sure wish I could simply call up GEnie and get the newest PD stuff and information that I need, but I have to rely on *Current Notes* and my trips to England for everything Atari related.

I travel to England several times a year and enjoy finding software and ST specific magazines in almost every city. Quite a bit different from the states. I was stationed in New Orleans from 1987 through 1990 and, at first, there were no fewer than four stores that carried the ST and software. I went home on leave this past summer and found that all four stores had either closed or switched to IBM. Not very encouraging for the U. S. market place. While in New Orleans, I served as the president of the Only ST Users Group, and later we merged with the only other Atari Group in the city, N.O.A.U.G. (New Orleans Atari User's Group). We became N. O.A.C.E. (New Orleans Atari Computer Enthusiasts), and I served as President until I was transferred here.

Here in Italy, I use my ST for Desktop Publishing. I have the Migraph Hand Scanner and the HP Deskjet, which really work great with *Pagestream 2.1*. MIDI is a second use, with *Tiger Cub* and the *Copyist* doing all the hard stuff for me. And yes, I play games. I finished *Chaos Strikes Back*, and loved it! I would like to see *Eye of the Beholder* converted to the ST, as it is supposed to be better than *Dungeon Master*. I am currently involved in *Midwinter II: Flames of Freedom*. Great game, if it didn't access the drive every screen change. If no one has reviewed it, I would love to write one, or contribute in any way to *Current Notes*. I realize that you have your regular contributors, and understand if there is no room.

I would enjoy corresponding with other ST users (particularly Mega STe owners) on news, what works, what doesn't what's new, and just keeping in touch with the States. If you could print my address in *Current Notes*, that would be great.

James Parker
Navy Band
COMSIXTHFLT
PSC 817, Box 47
FPO AE 09622-0400

[We have a Mega STe and I know the old *Publisher ST* does not work with it. I must also admit to being very surprised to find that some STe demo programs also don't work with the Mega STe. I don't have a standard STe, but I assume they, at least, work with that machine. We published a review of the Mega STe in the September 1991 issue and a few programs were mentioned there. But a more complete list would be a worthwhile project and I have started compiling a more comprehensive list. If any readers would like to add their information on programs they know work, or do not work, with the Mega STe, CN will put all this together and publish the results in a future issue. Thanks in advance to everyone contributing to this effort.

You have, undoubtedly, noticed the review of *MidWinter II* in last month's issue. However, we are always pleased to accept reviews from our readers. If there are games or programs you like (or don't like), do send in a review and tell others about them. –JW]

Stick to the Atari Market

Dear Mr. Waters,

Being a subscriber to your magazine for only a short time, it may be too early to form an opinion of the editorial staff at CN. But one thing for sure, I may not renew after reading your, "From the Editor's Desk," in the March 1992 issue.

You may ask why, but then again you may not. I think that the editor and owner of an Atari-based magazine like CN, should stick to the Atari Market and be loyal to it. Especially if it's your livelihood.

To me it's sort of like a small town Chevy dealer buying and driving a special Japanese sports car, because Chevrolet didn't make one he particularly wanted. And then scream his head off at the ever increasing Japanese en-

croachment of the American car market! His market! How many of this man's customers would be loyal to him after seeing him driving around town in that expensive Japanese sports car? How many would stop and say, "Hey, if Joe drives a Japanese car, they must be terrific and really good, after all he is a Chevrolet dealer" and he should know?

Now this may seem a little far fetched, but is not your editorial along the same line? Who knows how many readers will be influenced by your editorial and go buy this bargain PC with the CD-ROM or any PC for that matter, and may even wind up deserting the Atari market altogether.

If they do Joe, I lose, Atari loses, but most of all Joe, you lose!

Theodore J. Evans
West Chester, PA

[I lose? *Current Notes* is not in the business of keeping anyone in the Atari market if they don't want to be there. Mr. Evans was not the only reader to be aghast that CN would talk about a PC clone. But CN is not the only source of information for our subscribers. They can read other magazines and newspapers and consult friends at work or in their local computer clubs who will be more than happy to offer advice. I have a great deal of respect for CN readers. They are generally adults who know very well what their particular situation is and can make up their own minds about what they want to do or not do.

As for me, I already owned two Mega4 STs, a Mega4 STe, a 1040ST, an Atari STacy (that my son took to school with his IBM PS/2), an Atari 130XE, and, my very first machine, an Atari 400. I own two Atari SLM804 laser printers, an HP IIP laser printer, a Panasonic 1091, and a wide-carriage Panasonic P1024. I did have an Atari CD-ROM for several years, but eventually sold it since there wasn't anything to run on it.

After many years of denying my youngsters a Nintendo game machine (because we had ATARIs), I finally gave in and bought one while I still had kids at home (and it gets plenty of use).

I also bought a PC clone with a built in CD-ROM because I wanted access to those CD-ROMs. They won't run on an Atari. They won't run on a Mac. They run on PCs with VGA monitors. If anyone else wants to get into CD-ROM, I certainly do recommend that purchase. If they buy the PC and then decide to chuck all the Atari stuff because they have been "exposed" to something different, well, that's their choice.

Even though I use a Macintosh at work, and I now have a PC clone in the home, I still prefer my Mega (on a monochrome monitor) to any other options available. No, I don't lose if someone decides that, for them, a PC is what they want and need. I only lose if CN is dishonest with its readers and tries to keep people with Atari only because we want to keep subscribers. –JW]

MS-DOS User: Cancel My Subscription!

Dear Mr. Waters:

Believe me, I feel bad that things are so dreary for Atariphiles. I own a 1040STe with 4 Megs of RAM and a 20 Meg hard drive, and will undoubtedly hang onto it, as I can use it as a second computer and MIDI monitor. My main computer is currently a 16MHz 396-SX with VGA, blah, blah, blah. I also have a 386SX notebook, which is what I'm using to write this letter. I have often been somewhat dismayed at the editorial bent of your magazine but stuck with it because I felt you guys could use the support. But, I feel that I must "give up the ship" this time around. Even all of your writers seem to be at the end of their rope. Still, I want to let you know *my* opinions from the other side.

I do admire your writers David Troy and Dave Small. I thought their articles this month were fairly provocative. I guess Mr. Small was trying very hard to be obnoxious. I design and program for MIDI embedded systems for a living, and have used C and assembler for about seven years. OK, each one has its place, as Mr. Troy mentioned. I think that if high-level languages had never been developed, many of the tools we take for granted would not have been developed either. The fact that many C programs are not well-commented has nothing to do with the language! In high school I had to read Marcel Proust in French, and I hardly understood a thing, but I don't blame the French language! Also, anyone could come up with a stupid enough example in any language, such as Mr. Small's string copy example, to make it look ridiculous. So how's this for obscure:

```
char A$[20];
char B$[20] = "Current Notes";
strcpy(A$,B$);
```

Yes, you do have to remember to allocate enough space to hold the result, and that the second argument is the source. You also have to remember to drive on the right side of the road! Of course, Mr. Small didn't use this method, because it wouldn't support his argument! (Although his method is probably faster, more efficient, and closer to the way it would have been done in assembler). I haven't programmed in BASIC for awhile, but maybe Dave can show me how to do a linked list without using pointers.

I was going to mount a defense for C, but I realized that for me, its main advantage is that it's in very common use, which makes it easier to get a job programming! In addition, there are more pretty good debugging tools available since there's such a large market. Except on the ST, of course. I believe that the growth of such things as C++ is due to the falling cost of memory and disk space. It doesn't seem to be making C obsolete. Consequently, tomorrow's software won't run well on yesterday's hardware. Sorry. This is mostly a problem for Atari owners, who don't like to upgrade their hardware and expect to get all software for free. (This is something I've noticed on CompuServe forums.) Perhaps it's also a problem because the brilliant systems designers at Atari have managed to make incompatibility with older software a way of life. By the way, I'm currently trying to get a job at Atari. Does that scare you or what?! Don't worry, it's the games division. Even *they* don't use Atari PC's. Really.

I'm sure Dave Small never needs to use a debugger, since his superior approach results in code which always works great the first time. He probably also knows the execution times of every 680x0 instruction. In all seriousness, I'm sure he is very intelligent and creative. Best of luck to you, Mr. Small. I sincerely hope that you don't have to learn MS-Windows programming (as I'm currently trying to do) in order to earn a living. With any luck you can develop a 68030 accelerator for the Atari 800. A Commodore 64 emulator? You can be an iconoclast if you like, but you may have a real hard time working for anyone but yourself (I'm not certain if that's good or bad, actually).

Anyway, I must say that these kind of articles are beginning to annoy the hell out of me. Your conclusions: (a)

MSDOS users are sheep-like idiots. (b) C programmers are sheep-like idiots. (c) People who don't care about typing commands to start applications are masochistic, brainwashed, sheep-like idiots who believe that availability of software is superior to trapezoidal function keys.

Fine! I fit into all of these categories! If, instead, you had been giving me information on how better to use my STe (David Troy's article on DMA sound was *excellent*, but quite rare), I don't think I'd be writing this letter right now. Perhaps, in another year or so, when Atari has released yet another incompatible product "upgrade" which never ships in the US, and you guys have given up on your publishing dreams, you can become political campaign managers who berate the other side rather than extolling your own side's virtues.

I've even gone so far as to patronize my local Atari dealer, even though I could have saved a bundle by using mail order. The last time I went in to see if he had *Cleanup ST*, because I was having some hard disk weirdness. Not only did he not know what it was, the whole idea of a hard disk utility seemed quite foreign to him. "We don't get much demand for that kind of thing," I was told. Then I mentioned MIDI, at which point he said, "All the big rock groups use Ataris," followed by a stream of other remarks that made me think he really agrees with and believes everything you publish. Sadly, I vowed never to return.

For the record, I think Windows 3.0 is pretty slow, and the File Manager has some of the most glaring problems I've ever seen in a software package. For example: on a full-screen window, mark 20 files for deletion. Now delete them. The screen will redraw after each file, meaning that the operation takes about 20 or 30 seconds for something that would have taken half a second at the command line. But, WIndows 3.0 *multi-tasks*, which as a programmer, I really appreciate, if only so I can play a couple games of solitaire while waiting for a compile to complete. Also, there are jobs available (in Silicon Valley anyway) for WIndows 3.0 programmers.

Excuse me for getting upset, but I don't see how you can continue with your current approach. I didn't' even bring up Mr. Wrotniak, as I've found him to be hopeless from the start. I've enjoyed getting an insight into your strange secret club, but I don't want to be a part of it anymore.

Gary Worsham
an avowed MSDOS C programmer
(uncreative sheep-like idiot)
Los Gatos, CA

[Yeah, the world really is a tough place. It is difficult to listen to what people think. There are so many people and they have so many different viewpoints. And yet everyone is sure *they* are right and everyone else is wrong. But you certainly don't have to expose yourself to ideas expressed in *Current Notes*. The check is in the mail. –JW

P.S. Having just finished Dave Small's column this month, I don't think you would have liked it anyway.]

No Response from Double Click

Dear Editor,

I would like to call a situation regarding the Double Click Software company of Houston, Texas, to the attention of your readers.

In December, 1990, I purchased *DC Desktop* and tried it for eight months before deciding that I might have a faulty version, and writing Double Click with some questions. I received no reply. Since them, I have written three letters, spoken to Mike Vederman in person, and sent in my original disk with the upgrade fee, all to no avail.

Double Click Software's documentation is replete with pleas for support, admonishments to "PLEASE DO NOT GIVE OUR SOFTWARE AWAY," and threats "...we have been able to track down the persons responsible and have made them pay for their actions." This company is an example of one of the reasons some people pirate; I spent good money only to be ignored when I had a problem.

I would suggest that your readers think twice before purchasing any Double Click product. Besides, I can let you have my copy "REAL CHEAP"!

M. D. Marion
Northport, AL

Just the Facts, Please!

To the Editor:

I empathize with Rick Keene's frustration (CN 3/92 "Living with Mac No More"), but I'm concerned about the conclusions he has drawn from his experience. I'm frustrated, too, because I can't reach those same conclusions—or any conclusions—myself.

It seems that Keene found himself in the unlikely role of a go-between in a proposed arrangement between DC Comics and Atari. Atari would give Keene a TT in exchange for some kind of "promotional consideration" on each of the five books he would work on each year. In addition, if Atari agreed to this "promotional consideration," DC *might* send Keene to major comic conventions and set him up in a booth with the books and the TT.

Greg Pratt, then President of Atari, "didn't see the value of the credit line or 'plug' for Atari computers in these books." Pratt did eventually agree to provide Keene with a TT at considerable savings over the list price, but he rejected all proposals to advertise Atari computers in the comics—and Atari will, therefore, not receive the proposed "promotional consideration."

From this rejection, Keene concludes that "Atari is either stupid or they just don't care," but the article doesn't support this with the kind of evidence needed to make that judgment. A company's decision to advertise in a given vehicle is based on at least three factors: the audience that will be reached by the advertising, the funds available for advertising, and the cost of the advertising. The article doesn't detail the "promotional consideration" from which Atari would also stand to benefit. Since readers don't have any of this information in this case, it's simply not possible for us to come to a conclusion.

For example, while Keene describes comic-buyers as in the age-range of 8-65, what percentage of these buyers is interested in computers? What percentage is of an age that actually *buys* computers? Comics are "collectibles," items that are often traded and sold for profit rather than content and reading pleasure. What percentage of comic--buyers actually *read* the comics? If comic-buyers are not a likely target audience for computer advertising, then Atari is *smart*, not stupid, in rejecting the concept of advertising its high-end machines in that medium. Do other computer companies advertise in this medium? If not, are they also stupid?

I did a sampling of my own household, which includes seven computer users ages 5-41. Not a one of them buys or reads comics. Advertising in DC wouldn't have attracted our attention at

all. This is anecdotal evidence to be sure, but it's all I have to go on, as CN's article doesn't provide statistics based on a larger sample.

Some time ago, Pratt announced that Atari would spend 10% of its profits in a particular segment of their product line on advertising related to that segment. With that in mind, any informed STer can guess that they don't have much money in the ST/TT advertising fund these days.

Keene reports that DC doesn't "give breaks on advertising," so DC's inflexibility here may be at least partly responsible for Pratt's decision. As a CN advertiser, I know that the reasonable cost of my ad in CN was absolutely vital to my choice. Just how much does DC advertising cost, anyway? If Pratt was expected to provide a free TT *and* pay, say, $20,000 or more each month in a 12-month advertising contract, his decision not to advertise may have been quite sensible, especially in light of Atari's limited advertising funds and the uncertain demographics of comic-readers. If a full-page, full-color ad goes for $200, well, that's another story.

Did Greg Pratt make a sensible decision based on information regarding the demographics of comic-readers, on knowledge of the current bottom line in the ST/TT advertising fund, on the actual costs of advertising in this medium? Maybe. Did he make a "stupid" decision, as Keene concludes? Maybe.

Keene cites spin-off publicity that might, or might not, have resulted from Atari's cooperation with advertising in the comics. He asks, "...would it have been such a big gamble on Atari's part?" Well, if the advertising comes to a quarter of a million a year, absolutely—it might have been a reckless gamble indeed.

Does Atari care? Pratt cared enough about Keene's situation to offer him a sizeable discount on the purchase of a TT (even when DC was unwilling to return the favor by offering a discount on advertising). Does Atari care about "selling computers in this country"? I don't know, but I do know—from evidence presented in CN's article—that Atari is spending its limited advertising dollars very carefully. Atari won't squander these funds in any unlikely advertising vehicle. Like many ST users and developers, I sure do want Atari to advertise—and to make every advertising dollar pay off in sales. The comic book advertising may have been a great avenue for this—or maybe not.

I can certainly understand why Keene, as intimately involved with the comics as he is, would feel that comics and comic conventions are a powerful advertising medium, but can this feeling be supported by facts on demographics and costs? Unhappy experiences should be reported, but the conclusions drawn in such reporting should also be supported by facts within the article. Exactly what was the "promotional consideration" Atari was to receive? Just what was asked of Atari in return? Was the "promotional consideration" tied only to the free TT, or was the proposed advertising part of a package deal? How much is the advertising and whom would it reach? Can you tell us the facts in this case, please, so that we readers can come to our own conclusions?

Thank you.
D.A. Brumleve

Lexicor Products Pirated

Notice: To All

Lexicor has determined and confirmed that its former distributor and product manufacturer is making and selling PIRATE copies of Lexicor's software products.

If you have purchased any Lexicor products from RIO COMPUTERS we suggest that you make the following tests to see if you may have purchased a PIRATED program.

1. The first telltale sign is the "SERIAL. NUM" file on the disk. Check to see if it's different from the serial number written on the label of the disk. Another indication is the creation date stamp. Check to see if this file carries a creation date stamp of 02/03/28. Also, check the date stamp on the NUM file and see if it is the same as the one for the .PRG file. If they are more then *a minute* apart then you probably have a PIRATED program. Now, RUN the program, if it is *Prism Paint* or *Prism Render* then the serial number will be found in the "About" dialogue. If these two numbers are not the same then once again, you probably have a Pirated program.

2. All these numbers can be the same and you still may have a PIRATED copy. We have been investigating this situation for some time and found a number of identical programs sold to more than one person. In some cases the numbers match and in some cases they do not.

3. What you should do if you suspect you have a pirated copy.

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I know that this all seems like a lot of trouble, and it is. But neither you nor Lexicor created this problem. There is no excuse whatsoever for copyright infringement. This does not happen accidently and is virtually impossible for anyone to accidently make illegal copies during manufacture.

Lexicor has ceased all business activities with RIO COMPUTERS and urges all Lexicor owners to buy from an authorized ATARI dealer or direct from Lexicor.

We apologize for the inconveniences to any Lexicor customers and hope to have some new and exciting software for you soon.

Lee Seiler
LEXICOR Software
April 2, 1992

Send your Letter to the Editor, to:
CN Letters
122 N Johnson Rd
Sterling VA 22170.
You can also send your letters via GEnie; send to JOE.WATERS.

MONITOR MYSTERY, WHEN WILL THE FALCON SOAR? FSMGDOS? TORONTO SHOW A SMASH HIT

Atari "security cleared" a few people who have had secret sightings of the Falcon. They are ebullient about it,....

Less for More?

A number of months ago, you will remember there wasn't a shortage of monochrome monitors for the ST; there just weren't any of those monitors available. Several electronic Sherlock Holmses reported that GoldStar, who had been manufacturing the devices for Atari, had had a falling out with Atari. Various reasons were offered. After too long a period for the hungry monochrome buyer, the SM124 returned and color was no longer king. There was some question about the quality of the new monitors. Was the screen as sharp as GoldStar's had been? But these doubts were overridden by the general satisfaction that the monitors were available, both on the part of the dealer and the buyer.

Recently, a dealer reported that about a year ago he had obtained a monochrome monitor, in fact several, from Sampson Electronics in Freemont, California. For a brief moment he thought he had "a real find." The monitors were available to the dealer at $108 each, or $95 in 100 lots. But the glory was brief. The monitor was blurry in comparison with the old SM124 and could not be adjusted to compensate for this. It was not as bright either, and, sadly enough, picked up RF like a thirsty snake, from any device emanating same in its environs. This was the Quadrant monitor. It was a VGA monitor which could be used either with an IBM compatible or with its small plug adapter with the Atari.

Atari's new monochrome monitor, the SM147 sells to dealers for $165, and depending on the dealers needs, up to $250 to the consumer. Interestingly, like the Quadrant, it has no sound, and is a bit blurry. Surprise! When you open it up, if you are familiar with the Quadrant, you discover that is what it is. Atari is reportedly obtaining its monitors from Sampson Electronics with the innards adapted for the ST. The adaptation may be the reason for the extra cost to the dealer ($108 vs $165). However, curiously enough, dealers can still obtain the VGA Quadrant direct from Sampson at a lower price and add on a $2 plug so that it is fully ST functional.

Falcon Doesn't Fly

Why was there no new TT, dubbed the "Falcon," shown at CeBit in Germany? Those who ask are also asking why Atari cancelled the Boston Atari computer show, where they intended to debut the Falcon? The rumor, steaming up out of the bayous, is that the Falcon can't seem to get up, up and away without crashing. Atari is pushing the pedal to get the glitches out, identify and spray the bugs and get the machine, fully functional, into our hands. Hopes remain high for this latest computer, but it needs to hit the stores fast to avoid being mugged by the IBM discount priced clones.

At Toronto last month, there was "a secret" showing apparently, and if you enjoyed an Atari "security clearance," you saw it, saw "the new machine" and marvelled at it. That is not to say you were allowed to take it up and really wring it out. Somebody did that carefully for you. Interestingly, it had no cartridge port, but does have a SCSI port and super VGA color. No VME slots, but there will be multi-tasking TOS. For MIDI lovers the sound should be superior to the old machines. Still, you'll need to find another way to use your cartridge oriented peripherals. But why a secret showing? A new marketing technique?

Then with a Glendale group, Bob Brodie, Director of Communications for Atari, hewed the line to "discuss no product before its time," and urged his eager questioners to suggest things that the new Falcon might have inside and he would nod affirmatively when they were right, or comment negatively when they were far off the mark. Now, that is reverse hype, is it not—going one step further, "You'll touch no product before its time!"

The question thus remains, "When will it be time to fly the Falcon?" We expect developers will be receiving the machines by the time you are perusing this. When will you be able to buy one? Probably not much before the end of the year. But, when Atari? When? The market is slipping away, and quite rapidly. The Mac notebook is eating away at any success the STNotebook might have. As you can sense from articles in this issue, even CN authors periodically consider "other machines," despite their intense loyalty to the ST. Authors, one or two of whom, have already invested $4,000 and more in the most powerful of the IBM clones and super hi-resolution color monitors, claim they still return to the ST for their desktop publishing, if not their articles, etc. So, in sum, if the 8-bit loyalists are still out there in some numbers, you can be certain staunch ST'ites will hang on even longer.

Hear This Atari!

For months and months the roar in Atari's ear has been a loud chant about the joys of advertising to sell your product. Users who wanted more company, i.e. more Atari machines around them, so they didn't need to feel quite so shy in admitting what brand of computer they used, pushed hard to have Atari increase its sales by advertising more, and advertising nationally, and advertising on TV. Oh, the pride of seeing your ST gleaming out at you on national TV! (How many of you have seen it? We did, once.)

That said, advertising advocates (of which we are one) should know that last month the Public Broadcasting Service aired a program on "Creativity." One of the companies judged to be "most creative and most successful" spent less than 1/2 of 1% of their sales on ads. What does one say to that? P.S. This was also judged to be "a tightly focused, well unified company."

The Ghost of FSMGDOS

A senior editor of ZNET, Floyd E. Pully, has done some careful and telling research into a problem chronic not just for Atari, but all computer hardware and software producers, that of announcing the product and then suffering an interminable delay in its delivery. Pully documents the peregrinations, announcements, denials, and backing and filling that accompanied the "release" of FSM GDOS, the much improved version of the Atari desktop operating system, GDOS. A year after the rumors started, Pully notes, Bill Rehbock told his audience in February 1991 that FSM GDOS would be on sale the following month. Then in increments of every 2-3 months Rehbock would appear and announce a new date. Finally, at the end of last March, Leonard Tramiel of Atari made it final, "FSMGDOS is not yet."

Darek and Warp Speed

Warp 9 is the new name for Darek Mihocka's speedup program *QuickST.* CodeHead Technologies arranged to take it over from Darek and have added several improvements, which evidently have considerable buyer appeal and caused it to be a sellout at the Toronto Atari Federation show. Mihocka is now concentrating his efforts on a reverse PC Ditto II, a board that will allow 386 and 486 IBM compatible owners to run their favorite ST software on their IBM compatibles in their home or in the office, when the boss is away. Called the GEMulator, it will install as a card in your IBM, cost about $500 or slightly less, and, hopefully, be ready in a couple of months. Darek has been unjustly criticized in the past for turning his back on the ST. We think rather the opposite is true. He is working on a way to immortalize the ST, long after Atari has disappeared, in the soul of the IBM.

Hat's Off Award

The award goes to TAF, the Toronto Atari Federation, and all those named and nameless people who made it the resounding success it appears to have been. Atari is also almost unanimously recorded as rendering "outstanding support," with Atari Canada furnishing an abundant supply of equipment, and then keeping it glitch free throughout the event. The vendors and the users are always the two forces that decide how many stars a show deserves, but without superb organization even a maximum turnout by those two can still deposit a sour dust on the walls after the lights go out. Hats off, TAF!

ACE '92

Toronto Show a Great Success!

The Atarifest put on by the Toronto Atari Federation proved to be a smashing success for all involved. As usual, many comments flooded GEnie during and immediately after the show. Listed below are just a *few* of the accolades found in Category 11, Topic 6 from the ST Roundtable on GEnie.

Darlah (RT Sysop): (Msg. 203)

This is the second day of the show. The activity is still high. I would compare it with WAACE and Glendale. Actually, they might even surpass it.

The show is going well. The developers are selling out. The Codeheads sold out of Warp 9 the 1st day. I heard similar things from others.

Lou Rocha: (Msg. 205)

You bet it's a great show. The crowds didn't slow down until after 5:00 p.m., heavy aisle traffic since 10:00 this morning. This show is steamin'. Tomorrow I am going to take another look at the Optical Mouse across the aisle from me. My hand is going into the cash pocket……

I was amazed watching the BOINK demo on Jim Allen's souped up Mega with the Turbo 030. There was lots of interest and many, many questions about performance, installation, etc. Jim was his usual jovial self and novice to expert enjoyed his enthusiasm and expertise.

My high point was using SL on a full TT color system with a thermal dye 300 dpi printer. My God, it was amazing. People were lined up all day waiting for the color printout samples being churned out on this system. I worked the station for a while and chatted with user types from clubs in Michigan and Illinois (GLACE and ?) and was charmed by their interest and their knowledge. Of course, I never missed an opportunity to ask folks how they enjoyed SL and if they connected with GEnie. Unfortunately, too many said "no."

There are more than 40 vendors at this show and everybody says they are enjoying brisk business. All I know is that everyone is smiling – the Toronto Atari Federation, Geoff Earle, the vendors and, most importantly, the users.

The Codeheads were very busy and Todd Johnson was working in the booth with them. It took me three tries before I could say hello to Todd at 4:00 p.m. John and Charles looked very busy there, upgrading *QUICK ST* to *Warp 9* and selling out the Codehead catalog. I upgraded to *Warp 9* myself and will install it in a few minutes. I can't wait to see this work with my Fast Technology T25 and *Calamus SL*!

I met a fella with a product called WP-SWITCH (23.00) which is one of those WP data file translators with some enhancements, like the ability to automatically insert TABS when it encounters 3 spaces in a row. Hmmmm, sounds like just what I need for my spreadsheet imports to *Calamus*. I think I'm going to order one of those.

A number of local stores (yes, there's more than *one* in *this* town) had great prices on software, supplies and hardware. My friend Sonny from Compuworld says he closed his store today in order to make this show. His booth was three deep all day.

John Jainschigg sold me a subscription to *Atari Explorer*, after giving away two free issues. Guess I better write that check to *AtariUser* now, right John and King?

Toad Computers had some great prices on software and toner supplies. Other vendors were selling 9600 baud modems from 369.00 and up. I may have to bring the check book tomorrow!

The MIDI workshops in the outer conference halls were a sight (and sound) to behold. The audiences were very enthusiastic and the presenters were informative and talented. Cleverly, all the MIDI vendors were grouped along the same aisleway in the outer hall, right beside the performers' stage, so I guess they are used to the decibel level.)

In the classrooms, I got a peak at *Hyperlink* but missed the *Pagestream* workshop. I was present at Mario's workshop with 20 people. Today he was presenting a tutorial on *Calamus 1.09N*. Tomorrow *Calamus SL* will be taught at 3:00 p.m. That 2–hour workshop had already been subscribed by 40 people at 2:00 p.m. today.

Well, got to go now and run that *Warp 9*. I'll check in with you all tomorrow. Thanks for allowing me to use your space Jim.)

John Sheehan: (Msg. 210)

…I'm exhausted – but the show is done, the hall is cleared, and the garbage swept out. My last vision of the Skyline – Bob Brodie, Dorothy, Shirley Taylor and others sitting around a table in the hotel bar. ACE '92 was great fun, and it was a privilege having all you (you all?) as guests here in Atari Country. As soon as I get settled in Kaduna, Nigeria, we'll be announcing the first African Atari Kavalcade. (AAK? Got to get a better name.)…

David Thompson (JMG): (Msg. 220)

Just want to add our appreciation to the management of the ACE show. Great effort guys!!! Sales of *HyperLINK* didn't rival *Warp 9*, but were pretty decent! It's great going to a show where we don't have to fly or drive for 10 hours. (Toronto is just a nice leisurely drive down the QEW for 45 minutes.) Once again, thanks for all the help, and while George and I could both use about 3 days of sleep to catch up on that one hour we lost Saturday night, we wouldn't have missed the show for anything.…

Dave Small (Gadgets By Small): (Msg. 234)

Wow, everyone's said all the nice things I logged in to say! This has to be among the best, if not *the* best, show I

have ever been to in my life. Paul and John deserve some sort of medal (hmmmm... SST?) for making it happen. They had a "can–do" attitude and it showed. I saw Paul the end of the second day and I have rarely seen a tireder human, maybe someone at the end of a 26–mile marathon... maybe. To them and all the anonymous volunteers goes the credit for this total winner!

Many people were very kind. Nathan of ISD and Geoffe Earl of AtariCan made the effort to wedge me into the dealer schedule. Don Bahr of Computer Cellar did an on–the–spot fix of my MCU chip on my Mega and Don, I still have your bottle of tweek ... tried to find ya! Dorothy Brumleve was kind enough not to kill me when the vodka and orange juice screwdriver I brought her turned out to be a very fierce double (grin), but wow, the stories were worth it. Bob Brodie, as usual, did a thousand things that will never be known to make this happen. Charles and John and Nevin taught me the meaning of "wind chill" on the way to a fine dinner, so now I know (grin).

Originally, we weren't going to hit this show (we're so far behind on order backlog), but people like Nathan and Dorothy talked us into it, and I am very, very glad they did. This one was great.

Special mention should be given that Atari Corp. was showing some new hardware at this show. I should not say more in particulars, except that shows the sort of thing that went into this show. I know that myself and some others came away from it feeling more hopeful about Atari's future than we have in a long, long time. Thanks, you know who. [Yes, it was a private showing, but the people involved took pains to let folks see it to try and exert some positiveness on Atari's future.] I look forward to when it's public and you can all be as totally blown away as I was/am.

It was the sort of show where you need to borrow a floppy, you ask George (HyperLink), he gives you four, and refuses any money for them...

It was the sort of show where someone brings you a QUART (liter) of Diet Pepsi, because they have heard you like it, gratis...

When I was scheduled for a talk, bang, 15 minutes before, there would be an ACE volunteer there to remind me, just in case. And there were constantly roaming volunteers asking if all was okay, if we needed anything; I was easily asked 10 times a day if there was anything I needed. Wow!...

...Personally, I believe Paul and John and ACE and Atari and everyone has set a standard whereby shows will be measured by in the future.

Thanks to all the people I have and have not mentioned; it was wonderful.

Atari Industry News and Announcements

SuperBase Professional Updates

Registered Atari users of *Superbase Personal/2* and *Professional/3* can update to the latest version of the program for US$ 10 per update. The latest versions of these products are: *Superbase Personal 2* and *Superbase Professional 3*.

The $10 cost includes shipping via mail to all addresses. You can order an update by mailing your US$ 10 check or money order to: Oxxi Inc, P.O. Box 90309, Long Beach, CA 90809–0309.

Orders can also be FAXed to (310) 427–0971. If you wish to pay by credit card please include the card number, expiration date, and the exact way your name appears on the card, as well as your signature under the following statement:

"I authorize the charge of US$ 10 to the above card number. Signed:_____"

Regards, Pat @Oxxi (310) 427–1227. (STR–14)

New Touch–Up Coming from Migraph

Users of Mega STe and TT computers have had to disable their caches to use the current *Touch–Up* software (version 1.69). The problem has shown itself in the inability to scan an image without stray repetitions, like vivid shadows, around all images scanned with the cache in the normal position. The interim fix is simply to disable the cache before scanning. According to Migraph, a new version (1.8) of the *Touch–Up* scanning and editing software will be released in May. While details are not available yet, the marked increase in version number may indicate considerable improvements and new features. (ZNET–14)

Crazy Dots: New Model & New Lower Price

Gribnif Software has announced that their imported graphics card "Crazy Dots" has been well received, and that the volume they have experienced has allowed them to reduce the retail pricing. Crazy Dots 8 is the original "video display adapter" product, and will drive VGA and gray scale monitors with resolutions up to 1,664 X 1,200 and up to 256 colors or gray scales at once. Available in Megabus and VME versions, the price has been reduced by $150 from $999.95 to $859.95. If that isn't enough power for you, the new Crazy Dots 15 will do 32,768 colors or gray scales and the same resolutions. The new model is priced at the old model's original price; $999.95, and owners of the older model may upgrade for $199.95. Gribnif, P.O. Box 350, Hadley, MA 01035, phone 413–584–2565. (ZNET–14)

PowerPoint Debuts with New Network

Chris Latham, author of the *Universal Item Selector* and the *Universal Network* (marketed by A & D Software) has formed a new company and announced that he will offer no further support of the earlier products or company. Latham's new company is called PowerPoint Software, and the first product from his new company is *PowerNet*, billed as the most powerful networking system to date for the Atari ST/TT line of computers. Similar to his earlier network design, the system works with MIDI, LanTech LT101 and LT201 cartridges, as well as with the Mega STe/TT Local Talk ports. *PowerPoint* is offering a limited 'trade–in' for registered owners of *Universal Network* or *SGS Net* network software. The upgrade plan offers a complete 2–Node 'Starter Set' of *PowerNet* for 50% off of the regular $99 price. To participate, owners of the products must send in their FORMATTED original master program disks along with $49.50 (plus $5 S&H). Additional Nodes are $55 each; MIDI connector boxes are $20 each; Local Talk connector boxes are $25 each; and a special 'Midi 2–Node Package' (complete with 2 connector boxes) is $120. PowerPoint Software, P.O. Box 942, Merlin, OR 97532, phone 503–479–6635. (ZNET–14)

Atari–Net Announced

A new network for those BBS's that choose to support the Atari platform of home computers has been announced. The name of this new network is AtariNet and can be accessed by any BBS that uses any Fido compatible mailer/msg tosser. Any BBS that wishes to join should send Netmail to either Bill Scull (1:363/112 or 51:1/0), Jim Goedhart (1:104/223 or 51:2/0) or Tony Castorino (1:102/1102 or 51:3/0). We have a parser for the Atari platform and I'm sure there are parsers for other platforms that will support multiple domains. Once you apply you will be sent a package that contains the parser and the latest node list. For any assistance you may need, you can contact any of the existing nodes and they will be more than happy to help you get started. (ZNET–14)

Atari Comes in Third in Canada

In the February 10th 1992 issue of the *Canadian Computer Dealer News* Atari came in third right behind IBM and Apple for overall sales in Canada. IBM and Apple came in at 10.6% respectively while Atari came in at 3.2% of the market. Commodore didn't even make mention in the list while Compac and Tandy came in at 3.1. (ZNET–14)

European PC Market Fragmented

According to a report from Datamonitor, a London–based strategic management consultancy, the European PC market is more fragmented than ever before, with no single manufacturer dominating the market.

In the UK's 1.5 million unit sales market the ratings are as follows: Compaq and IBM each have 14% of the market, with Commodore coming in third place with 13.2%. Amstrad

holds fourth place with 7.8%, followed by Apple with 6.8% and Olivetti with 5.7%. Atari is next with 0.5%. After that, the market is highly fragmented with several companies holding the remaining 38% of market share.

In Germany, also with a 1.5 million unit sales market, Commodore leads with 15.0%. Second place goes to Atari with 13.0%, followed by IBM with 11.8%. The rest of the pack is as follows: Compaq, 5.0%; Amstrad, 3.3%; Olivetti, 2.4%; and Apple, 1.9%. Forty-seven percent of the market is held by others.

France with a 1.2 million unit sales market is a different picture. Compaq and Atari lead with, respectively, 13.3% and 10.1% market share. The other five companies: Apple, 8.5%; Amstrad, 7.9%; Compaq, 6.6%; Olivetti, 4.7%; and Commodore, 3.8%. The "others" have 45.1% of the market.

Italy, with 700,000 annual unit sales, finds Olivetti leading with 25.0% of the home market. Second place goes to IBM with 21.0%. After that, it is Commodore, 7.9%; Amstrad, 5.7%; Apple, 3.5%; and Atari/Compaq with 2.9% each. The rest of the market, the others, hold 31.1%. (STR-15)

Atari Results Delayed.

Atari Corporation delayed the release of their 1991 fourth quarter financial reports for several days past the March 31 deadline imposed by the Securities and Exchange Commission, then announced a poor quarter performance with a $4.4 million loss. Atari reported $1.6 million earnings on $49.2 million in revenues in its third 1991 quarter. Comparisons with 1991 and 1990 quarters are difficult due to a long series of credits, write-offs, repurchase of debentures, etc. For the full 1991 year, sales dropped to $258 million from 1990's $411.5 million. Net income for the year was $25.6 million, compared with $14.9 million for 1990. But the 1991 figure includes a gain of $40.9 million on the sale of the company's manufacturing plant in Taiwan, and the 1990 profit included $35.7 million in extraordinary gains. The operating loss for 1991 was $18.7 million, compared with a loss of $25.2 million in 1990. Atari President Sam Tramiel said, "The company has restructured its overhead and is focusing on the improvement of its balance sheet and the development of new products."(ZNET-16)

Police Crack Computer Network

Police in San Diego, Calif. have cracked a nationwide electronic network of young computer criminals who have made fraudulent credit card purchases and broken into confidential credit rating files. The investigation has led to two arrests in Ohio and seizures of computers and related material in New York City, the Philadelphia area and Seattle. (ZNET-16)

SHOW ANNOUNCEMENTS

June 14: Milwaukee Atari Show

The Milwaukee Area ST User Group (M.A.S.T.) has finalized plans for a second show in Milwaukee! The show will be held at Bowlero, Red Carpet Lanes in Wauwatosa, WI from 10:00 AM to 5:00 PM. For further information: GEnie: R.CARPENTE18; US Mail: PO Box 25679, Milwaukee, WI 53225-0679. Phone: (414) 463-9662.

July 18: 1992 Blue Ridge ATARIFEST

The Blue Ridge Atarifest will be held from 10 am to 6 pm at the Westgate Shopping Center, Asheville, N.C. For more information on this one day event, contact Van Estes, BRACE President (704) 685-8358. A variety of hotels and motels are available in the area, but reservations should be made immediately, as July is the height of the tourist season.

July 25: MIST Atari Fest IV

The fourth MIST Atari Fest will be held again at the Castleway Conference Center, 6385 Castleplace Drive, Indianapolis, Indiana. The 1991 show drew 30 vendors and 500 individuals. The conference center has ample parking and is close to several reasonably priced hotels, many fine restaurants, and the largest mall in Indianapolis. For more information call Dan Ward (317) 254-0031 or send E-mail to D.WARD10 on GEnie.

July 25-26: Northern California Atari Expo

The first Northern California Atari show in two years was announced by a coalition of three local Atari user groups. The show will be held at the Exhibit Hall, 145 W. San Carlos, San Jose. The 1990 show was highly attended and very successful. The show will run from 10 a.m to 5 p.m. each day and admission is just $5.

For additional information on the show contact N. California Atari Expo, c/o SLCC, P.O. Box 1506, San Leandro, Ca 94577. GEnie: M.WARNER8 or call at (510) 352-8118.

August 15-16: Connecticut AtariFest '92

The Connecticut AtariFest '92 will be held at the Sheraton Hotel at Bradley International Airport, Windsor Locks, CT. The show is being sponsored by three Atari user groups and will showcase the latest Atari products and services, as well as offering seminars on desktop publishing and video production, hands-on instruction from manufacturers and software developers, MIDI demonstrations, giveaways, a swap room and much more.

For more information about attending or exhibiting at Connecticut AtariFest '92, contact Brian Gockley, chairman, 18 Elmwood Avenue, Bridgeport, CT 06605 [Phone (203) 332-1721].

PRESS RELEASES

Phil Comeau Software Update

[For more information, contact Phil Comeau Software div. of Wintertree Software Inc. 43 Rueter St. Nepean, Ontario Canada K2J 3Z9 (613) 825-6271.]

Phil Comeau Software announces the release of new versions of *GramSlam* and *Grammar Expert* for the Atari computer line.

GramSlam checks documents for common grammar and writing-style problems. Improvements in the new ver-

sion (3.30) include improved document statistics, new overall—style score a new progress "thermometer" while your document is examined, faster booting and checking, and improved tests for American/British spelling.

Grammar Expert is an online reference for the rules of English grammar, punctuation, and effective writing. Improvements in the new version (1.11) include less disk space and improved text displays.

A limited but working demonstration of *Grammar Expert* has been released for general availability on GEnie and CompuServe. A working demonstration of *GramSlam* has been publically available since its\release in January 1991.

The prices of the two products remain the same: $39.95 for *GramSlam*, and $59.95 for *Grammar Expert*. Registered owners of either product can receive upgrades from Phil Comeau Software for $5.00 per product plus $3.00 for packaging and shipping.

Warp 9 Software Accelerator!

CodeHead Technologies announces the release of its brand new software accelerator—*Warp 9*!

On January 1, 1992 we took over support and development of the popular *Quick ST* screen accelerator from Branch Always Software. It's taken over three months to complete the modifications necessary to turn it into a CodeHead product, but it's well worth the wait. The resulting fruit of our labors is *Warp 9*, the fastest, most compatible software graphics/text accelerator *ever* for the Atari line of computers!

Although *Warp 9* has a completely new user interface and many new features, the major benefit over previous screen accelerators is COMPATIBILITY! Literally dozens of bugs and compatibility problems have been eradicated in *Warp 9*. It now works fine with FSM GDOS, and problems have been eliminated with *Touch—Up*, *PageStream*, and many other programs where redraw and other problems existed. *Warp 9* also works fine on the TT, and accelerates the graphics of TT Medium resolution remarkably. Once you try using *Warp 9*, you'll never allow yourself to operate without it again.

Besides speed and compatibility, *Warp 9* offers you all of the same features available in *Quick ST* and much more. You can replace the system screen font with one of your own, or choose from any of the 6 dozen fonts included with *Warp 9*. You can also change the system fill patterns, altering the look of your windows and dialog boxes. You can change the desktop's background pattern by using a custom fill pattern or even load a picture in any resolution, including the TT resolutions. *Warp 9* can load pictures in many formats, including PI1, PI2, PI3, PC1, PC2, PC3, TNY, TN1, TN2, TN3, and PNT. The font, fills, and background pictures can be configured to load automatically when you boot up. Fonts and fill patterns can be edited by using the included *Customizer* program.

Warp 9 also includes the functionality of *FunkAlert*, the shareware program by Charles F. Johnson. This gives you the ability to select any button in any standard alert box by the simple press of a function key. You can turn off the system Zoom Boxes, too, for even more speed. A well—written 50—page manual gives detailed instructions for using every facet of Warp 9.

Price is $44.95. Contact your local dealer or order directly from CodeHead Technologies. MC/Visa/AmerExp credit cards are accepted. For shipping, add $3 US, $4 Canada, and $6 overseas.

Owners of any version of Quick ST or Turbo ST can purchase Warp 9 for only $20 by returning their original disk with payment to: CodeHead Technologies, P.O. Box 74090, Los Angeles, CA 90004. Phone: (213) 386—5735 (Mon—Fri 9A—1P Pacific Time); FAX:(213) 386—5789; BBS:(213) 461—2095.

HyperLINK 2.0

The long awaited HyperLINK 2.0 began shipping at the Toronto ACE show. New improvements include a totally rewritten manual, new linking screen, new linking options, new visual screen, new builder base screens (customizable!), new easier editing of options, new application info screen, and automatic conversion of older haps.

Several new features have been added: decimal support in database, keyboard shortcuts for links & buttons; Improved textlink capabilities, error checking; Transverter for adding fields to a database, etc. Expressions now fully supported on report printing; More versatile multi button handling; Report builder enhancements: all features supported for field types, loading/saving, and better error checking, easier use; Window positioning support; Enhanced parameter passing, expression evaluation, etc.; and Redone & enhanced application defaults screen.

HyperLINK is Distributed by JMG Software International, Inc., 892 Upper James Street, Hamilton, Ontario, Canada L9C 6C2. Phone: (416) 575—3201; FAX: (416) 575—0283; BBS: (416) 389—9064. GEnie: JMGSOFT.

Pure C

Gribnif Software is proud to announce the availability of Application Systems Heidelberg's Pure C in the North American Atari market. This is the newest version of Turbo C Professional, previously from Borland Germany. While the package remains in its original German form, the entire program's interface is in English.

The system includes an editor, compiler, linker, and a debugger. It works on all Atari ST & TT computers, fully supporting high resolution and extended color displays. Libraries are included for the TT's math co—processor, FSM—GDOS support, and the Borland BGI Graphics Library for compatibility with PC programs. This feature—packed program requires at leat 1 megabyte of memory and any resolution (80 columns or greater), including high resolution and extended color display. Pricing: $275 U.S. (plus s & h). Turbo C Upgrades: $175 (must include original Turbo C master disks). Shipping and handling: $7 within the US, $10 to Canada.

Gribnif Software, P.O. Box 350, Hadley, MA 01035. Tel: (413) 584—7887, Fax: (413) 584—2565.

NeoDesk 3

Gribnif Software has announced a new Spring Promotion of their desktop replacement for the Atari ST, STe, and TT computers. Through this special promotion, you can get the popular NeoDesk 3 for only: $35.00 (50% off the regular price or $69.95).

NeoDesk 3 is a complete replacement for the built-in desktop. Version 3 adds many new features and enhancements over the original desktop, while remaining compatible with your other software. There's no hardware to buy, no ROMs to plug in. Just install it on your system and off you go.

Gribnif Software, P.O. Box 350, Hadley, MA 01035. Tel: (413) 584-7887, Fax: (413) 584-2565. S&H: $4 US, $5 Canada.

Convector Professional Bitmap to Vector Autotracer

Gribnif Software has released the much awaited Convector Professional software package for the Atari ST, STe, and TT personal computers.

Convector makes the complex task of automatically tracing a bitmap image into its vector graphic equivalent a breeze. The new vector graphic, which mathematically defined, requires substantially less storage space and can resized without affecting the original image detail. This prevents the famous "jaggies" which are so common when resizing bitmap images.

At the Toronto Exposition, two highly complex images (each over 300K in size) that refused to work in a competing program, causing it to crash, were perfectly vectorized by Convector within seconds, resulting in small (under 50K) vector graphics.

Convector can read bitmap images in a variety of formats, including: IMG, Degas, IFF, TIF, PCX, PIC, Arabesque, Megapaint, NeoChrome, etc. The generated vector graphics can then be saved in most Atari vector formats, including: Arabesque, Calamus CVG, GEM/2, GEM/3, Encapsulated Postcript (EPS), Megapaint, etc.

Convector also runs a desk accessory, allowing it to be used as an Arabesque module, or to vectorize any GEM screen display. It can even be used as a Megapaint module. The program also includes special support for the vectorization of entire fonts and symbol tables, which can then be saved in individual vector files for easy importing into most popular font editors. Convector also generates single vector objects (as required by most font editors).

The suggested retail price is $149.95. Dealer inquiries are invited. Gribnif Software, P.O. Box 350, Hadley, MA 01035. Tel: (413) 584-7887, Fax: (413) 584-2565.

MacRead: Mac to ST File Transfer

MacRead lets you read data files from a Macintosh formatted HFS hard disk or a Spectre formatted HFS floppy disk and store them on an ST disk. HFS is Apple's current disk format, much faster and more flexible than the older MFS format. Images, illustrations, text, data, PostScript files, and more can easily be read from a Mac disk for loading into an ST/TT software program. Say goodbye to compatibility problems and MFS disks! MacRead is available now for $49.95 from Goldleaf Publishing, Inc., 700 Larkspur Landing Circle Suite 199, Larkspur, CA, 94939, 415/257-3515

The NewDesk Icon CPX V2.0

Software Development Systems introduces The NewDesk Icon Editor CPX Version 2.0, the latest upgrade to this popular icon editor available for Atari computers with TOS 2.05 and above.

NIC, which runs using Atari's Extensible Control Panel (available on GENIE or at your local dealer), uses only 1k of system memory when not in use and can be conveniently called from any GEM menu bar. In addition users with a TOS version less than 2.05 can still utilize the 32x32 icon editing capabilities for use in HYPERLINK and any resource construction set.

Version 2.0 completely supports the Atari Clipboard for interaction with other programs that support this standard. Our clipboard support writes .XIC, .ICN, and .IMG files for manipulation from within other programs.

The package also includes .XIC Print, an application to print your icon files to any GDOS/FSM GDOS device, and an icon convertor to convert PD icon files to .XIC. We have also put over 600 PD icons on disk.

The Newdesk Icon Editor Version 2.0 is available now for $29.95 + $2.50 S & H. Owners of earlier versions can upgrade for $10.00 + $2.50 S & H. Contact your local dealer for information or order direct from SDS.

Software Development Systems, 996 Redondo Ave. #404, Long Beach, CA 90804. Orders: (800) 237-4SDS, Info: (310) 595-9799. GEnie: S.SANDERS2. (COD's accepted, but no credit cards.)

Rev 6.10 of Inventory-Pro and Sales-Pro Systems

Hi-Tech Advisers announces the immediate availability of their New Version 6.10 of Inventory-Pro and Sales-Pro Systems. These new versions are available for PC Compatibles and Atari TOS Computers. Updates are available for current program users. Limited Entry Demos are available for download on GEnie and CompuServe.

New features in Version 6.10 of Inventory-Pro include more printer set-up codes to support HP Laser Jet Printers, specifying percentage increases to automatically calculate wholesale and retail prices when adding or posting inventory, a new, easy to use text file editor, user definable default choices for all of the sub-menus as well as the main menu, new error trapping system and more diagnostic information to help with any unusual problem, and many speed and cosmetic improvements including more screen information and pop-up windows.

Updates of the popular Sales-Pro Point-of-Sale / Inventory Control / Accounting Software System are available for current registered program users. A wide variety of new features have been added to this latest revision.

Hi-Tech Advisers, P.O. Box 128, Ravena, NY 12143. Orders: 1-800-882-4310. From outside the U.S. call 518-756-3800.

The Junkyard Pussycat

by John Barnes

The Price of Progress

The Junkyard is a great place to find serviceable old parts to keep things running after they have passed their prime. This month, however, the Pussycat is venturing out into the world of new products. From his position on the periphery of the Atari world the Pussycat has been picking up vibrations about new goodies that promise to fundamentally alter the lifestyles of serious Atari users.

Multi-TOS

As a frequent Macintosh and UNIX user in his daytime job, the Pussycat has long wondered why Atarians do not have the benefit of true multitasking-multiple activities sharing the resources of the machine in a manner that makes it look as if they are all happening at the same time. Well, it appears that a few bright guys at Atari have been following a PD program named *MiNT* and have decided that it can form the basis for a true multitasking operating system for Atari computers.

While a multi-tasking operating system has been in the works for quite a while, the form that *Multi-TOS* appears to be taking is quite a surprise.

Working versions of the software were displayed at the recent CeBit show in Hannover, Germany and at the Toronto Atari Fair in Canada. Release dates and release modes are still unknown. That *Multi-TOS* is based on *MiNT* has been publicly acknowledged by Atari employees. Presumably, Atari has made some sort of a deal with Eric Smith, the developer of *MiNT*, to pick up on his line of development.

Given that *Multi-TOS* is derived from an application that is already in the field (although the Pussycat has not yet attempted to install it), there is plenty of room for speculation.

Earlier versions of multitasking OS's from Beckemeyer development and Microware systems did not gather much of a following. They were, perhaps, too alien for even serious Atari users. Similarly, *MultiGEM*, a product brought into this country by Rimik Enterprises, has gotten mixed reviews from the few people who have worked with it.

If Atari does a good job of sprucing up *MiNT* to make it into Multi-TOS there is reason for optimism. If *Multi-TOS* does half as good a job as *Multifinder* does on the Macintosh or, better yet, if it goes toward Mac System 7, it would put Atari back on the field of play.

The joy and power that comes from an ability to jump quickly among varied applications like drawing programs, spreadsheets, word processing, telecommunications, and page layout while keeping all of them active at the same time is something that has to be experienced to be appreciated. This is not mere hacker stuff, it is the guts of modern computing productivity.

In a multitasking environment there is no longer a need for a distinction between applications and desk accessories. Every program effectively becomes a desk accessory that can be invoked at any point during the running of another program. There are, of course, some exceptions to this under *Multifinder*, and it is reasonable to expect that this will be the case under *Multi-TOS*.

There is no need for access to the menu bar, so that another activity can be started up even while running a .TOS or .TTP application

TOS 2.06

Ever since Atari introduced its version of the GEM operating system, developers have been working overtime to find ways around its limitations. Atari itself has improved flexibility and modularity by introducing incremental improvements like FSM GDOS and the extensible Control Panel (CPX).

With TOS 2.06 they have made a pretty significant, if not a radical, step forward. By breaking the 192 Kbyte barrier on TOS ROMs Atari has given itself some elbow room, and by taking note of some of the features offered by desktop enhancement programs like *NeoDesk* and *Hotwire* they have come up with an attractive and functional user interface.

Through the efforts of Artifex Software of Germany, helped along by the Codeheads, owners of existing ST machines can install the ROMs for the new operating system by wiring in a daughterboard. Mega STe and STe owners will find it simpler to plug in the new ROM chips, which should be available from your favorite dealer.

The Pussycat just got his new Mega 4 STe the other day, and has not really had a chance to experience the new TOS (he will also need to upgrade from 2.05 to 2.06 when that becomes necessary). Impressions from acquaintances are quite favorable. Since TOS 2.06 uses erasable PROMS, expect to see more rapid evolution of this part of the operating system.

FSM GDOS

When Atari first brought out their product line, the software that was needed to drive graphic output to external devices (mainly printers) was not finished. Several years of experience with third party implementations and the limitations of the method have resulted in a new approach using scalable fonts.

Applications on other platforms that used scalable font technology for the last couple of years show a remarkable unity of form and style. Given the fact that scalable fonts use a functional description rather than a bit map, it should be possible to come up with applications that allow fonts to be converted into a variety of forms, thus allowing users of DTP software to keep their font collections under reasonable control.

Reports from early users of FSM GDOS are very favorable, and it would be nice to see whether this line of development will banish GDOS agony forever.

New Hardware

Atari stayed with the 68000 architecture for a long time. Progress on the software front may have forced their hand. Atari is known to have shown a new machine to selected individuals during CeBit, the giant European computer show held in early March in Hannover, Germany. Strong rumors indicate an architecture based on a 68030 processor running at a healthy clock rate. A 68040 machine is rumored to be at an advanced stage of development.

If these rumors become reality, the ability to do multitasking will be significantly enhanced because the 68030 supports memory protection that the 68000 does not.

Based on past experience on other platforms, the increased speed of the 68030 should make computationally demanding activities like multitasking, font scaling, 3-D rendering, and others of that ilk a real joy. If applications become aware of math coprocessors, then the 68881 will become a desirable add-on and will speed things up even more.

Multiple applications, font caching, and simple memory requirements arising out of application complexity mean that four megabytes of memory will seem very cramped. The 68030 greatly improves the machine's ability to handle extra memory and replaceable SIMM modules allowing the user to make economical and electrically simple upgrades as the cost of memory drops.

The multiple RS-232 ports and the networking ports on the Mega STe and TT are the result of greatly improved capabilities in chip sets for handling serial transfers.

Perhaps we will see other peripherals like floppy disk drives and screen displays get smarter as time goes on (why should formatting a floppy tie up the machine like it does?).

If these future offerings really possess a fully integrated architecture, it will be even more significant. The current crop of speed boosting tools suffer severe limitations because they have to be patched onto an architecture in which the memory bus and the peripherals are operating much more slowly than the CPU.

In this sense the Mega STe and the TT are really transitional machines. They suffer somewhat when trying to match fast CPU's to a memory and DMA architecture that is supposed to be backward compatible with older ST hardware and software. Four megabytes at an 8 MHz clock rate simply does not cut it in today's market. 120 nanosecond RAM is also passe. SIMMs are the style, and the faster the better.

Except for the TT, Atari has lagged behind in the display area. It will be interesting to see whether we can finally get 256 colors on a screen with at least 640x480 pixels. If we could get 1024x768 non-interlaced to drive an industry-standard multisync monitor, so much the better. Upgrade boards from Lexicor (Leonardo) and Gribnif (Crazy Dots) to accomplish this seem to be pretty pricey add-ons with uncertain software support.

No More ACSI?

ACSI is Atari's own method for accomplishing Small Computer Systems Interconnect (SCSI) to link machines with peripherals like hard drives and laser printers. There is a rumor that ACSI will be phased out in favor of pure SCSI. Steps in this direction have been taken in the TT architecture. Will be able to throw away our old host adapters? It seems logical that we should be able to obtain replacement SCSI drive boxes for our SLM 804 and 605 printers. The Pussycat expects that this may lead to improved performance with better engineered cabling.

The Risks

No progress is possible without some risk taking. There is considerable risk that some of our favorite software is bound to break when used in the new environments. That software that follows the rules most closely should be the easiest to repair. There is evidence that Atari is working harder than ever to help developers build good applications. There is also evidence that the developers are learning what it means to follow the rules.

Even if it does not fail completely, some older software will have to be reengineered to make it fit well into the new environment. Will developers go out on the necessary limbs while the new line builds an adequate user base? Will they be able to maintain backward compatibility? Will the demand for upgrades to existing products distract them from the task of designing new ones to support the new machines?

Some Mega STe and TT owners have already been disappointed to learn that some game developers have

not chosen to upgrade or write new products for their machines.

Writers of productivity applications seem to have a more professional approach to building products that can go with the flow of an evolving operating system.

While these are important risks, it seems that Atari has no choice except to take them. If they fail to meet the needs of their power users in the MIDI and DTP markets, the competition will finish eating Atari alive. Home users who cannot upgrade to a stable environment that will be supported by the developers of family and entertainment software will get bored with the wares on the shelf and pack the machines away in the closet.

This may be the final straw for those loyalists who swallowed their 8-bit pride to upgrade to an ST. The next 12 months promise to be exciting times.

Sharper Tools

A multitasking environment, with effective communication between applications is inherently modular; perhaps, as in the example of UNIX, excessively so.

This imposes a lot of discipline on software developers while simultaneously increasing the complexity of their life. Programming in OSF *Motif*, Microsoft *Windows*, or the Macintosh operating system is a formidable task.

Atari developers have needed an effective application prototyper for a long time. The new environment, with its added rules and restrictions to ensure compatibility among applications will probably make this need even stronger.

Atari has long deprecated funky interfaces, programs that take over the whole desktop, and oddball ways of accessing basic system functions as "violations of the rules." If Atari's version of the operating system is sufficiently well-defined and well documented, and if their support channels to developers work effectively, we may see much more robust applications.

Keep the Faith, Atari

Past announcements for new products like those described above have always elicited a certain amount of skepticism. By the time that the first batch of new products trickles out of the pipeline most of the excitement has died down and must be kindled anew. By the time the flow reaches a level that would nourish the marketplace the products have been all too frequently overshadowed by announcements of the next generation.

Given the number of products that have been stillborn, it is easy to read this pattern as being due to a lack of faith on Atari's part-the initial announcement is merely a sampling of the interest from the market and the first trickle of product is really not much more than a batch of prototypes that still need engineering work.

The litany of products that fit this model is too long and too well known to list here. The computer business is cruel to those who venture forth timidly.

On the other hand, the last couple of releases from Apple have shown that they understand the idea that consumers and dealers are most willing to make their commitments while the fever still burns.

It may be possible to read the fact that Atari wanted to preview some hot new products at a special meeting of the Boston Computer Society originally scheduled for late April as a sign that the new products are not far off. One surely hopes so.

Nothing would reward the Atari faithful more than a demonstration by Atari that they have enough faith in their products to produce a whole shipload of them before the bloom even appears on the rose.

Current Notes PD/Shareware Cartridge No. 3

95 Disks: #460 - #554 (July 1990 to April 1991)

$119.95

Adventure Games
494 Taipan II (C)
507 Text Adv Dev Sys
507 Ditch Day Drifter
508 Deep Space Drifter
513 Disenchanted

Desktop Publishing
461 Calamus Outline Art Demo
469 PageStream Font Editor
470 Clip Art #14-People
471 Clip Art #15-People
521 Clip Art #16-Old Cars
522 Clip Art #17-Cartoons
523 Clip Art #18-Misc Themes
524 Clip Art #19-High Res Pictures
538 Calamus Fonts (Advertise, Architect, Barnum, Broadway Engraved, Causal Loose, Celtic Roman, Flash Book, Fancy Chancery, Harloe, Kleranden Heavy, Mouse, SchoolBook, St. Francis, Suizo, Tiphany, Univ Bold, Univ Roman, Wild West, Windzor.)
552 Calamus Fonts (Lucifer, Tiempo, HORSE CAPS, LEE CAPS, MEDICI, ZALESKI CAPS) plus GEnie messages.

Database
545 Cardfile D.V1.43
545 Notes V0.9
548 First Base V2.0
554 Informer II D.
554 R–Base D.
554 TLC Address Book

Demos
460 DynaCadd D.
464 Personal Finance Manager Demo
465 Mail Pro Demo
526 eSTeem PILOT D.
541 God's Word^2 D.

Education
477 Class V2.05
477 EZ-Grade D.
485 Algebra 1: Linear Equations
486 Algebra 1: Verbal Problems
487 Basic Math Skills: Operations
488 Grades, Interims, Student Teams
495 TestMaster V2.01
516 Stargate V3.0 (M)
530 Cinema
530 Flash Card

Games
462 Bloodwych D.(C)
463 Blood Money Demo
463 Wipeout D.
465 Stocks and Bonds (M)
478 SpaceWars V1.0
479 Hero IID D.
479 Swiftar D.(C)
499 Starblade D.(C)
500 Yolanda D.(C)
500 Rick Dangerous D.(C)
501 Photon Storm D.(C)
501 Aquanaut D.(C)
502 Kid Gloves D.(C)
502 Back to the Future Demo (C)
512 Sorry (C)
512 ST Square (C)
514 Pileup V3.0 (C)
525 Gran Prix (C)
532 Maniac Miner (C)
532 Valgus
533 Collapse V1.1 (C)
533 Jeopardy (C)
533 Valgus^2 (C)
533 Triple Yahtzee (C)
534 HacMan II (C)
539 Toyota Rally D.(C)
539 Flimbo's Quest D.(C)
539 Defender II D.(C)
540 Simulcra D.(C)
540 Spellbound D.(C)
540 9 Lives D.(C)
543 Midi Maze II
550 STrabble
550 Nova

Graphics
482 Wallace #1 (C)
483 Wallace #2 (C)
484 Wallace #3 (C)
491 Wild Flowers (C)
497 Public Painter V0.1 (M)

Kid Games
476 KV-Me First! V2.0 (C)
504 KV-Match (C)
504 Letter Hunt (C)
504 Ench. Forest (C)
504 KV-Geog-1 (C)
505 SDI Adventure (C)
505 Mansion Adventure (C)
505 Mountain Adventure (C)
535 KidMixup Plus (C)
536 Rabbit (C)
536 Santa Clause (C)
536 Burger (C)
536 Circus (C)
536 Robin (C)
537 Perfect Match (C)
537 Makin' Aiken (C)
537 KV-Fonic (C)
542 Kid Story (C)
542 Wuzzlers (C)
542 Rebus Writer
543 Dreissig (M)
543 AKS (M)
547 Barnimals (C)
547 The Wolf and Seven Kids (C)

Music/MIDI
466 16-Voice Sequencer
467 MIDI Music Maker
496 Guitarist D.
498 Equinox Sound-Tracker V2.5
511 MIDI Mike V1.0
511 Music Studio Song Player V1.2
511 MS Player
527 Alchimie Jr. Music Sequencer
527 Name That Tune
528 Name That Tune Misc Songs
529 Name That Tune TV Songs
544 Pers Music Lib
545 Musicalc V2.02
546 TCB Tracker demo

Office
464 Payroll V3.0 Demo
464 Cost of Living Adjuster
464 Checkbook V1.14
493 B/STAT Ver. 2.36

Reference
480 Current Notes Catalog
481 CN Macintosh Collection
489 Area Code Locator
489 Postal
509 GEnie Files 9/90
515 Starting Block Columns

Telecommunications
472 Instant Graphics! V2.14
473 Instant Graphics! Utilities
474 MiniTerm Desk Accessory
474 MiniBBS Bulletin Board System
510 Nite Lite BBS
510 Vulcan Embassy BBS
517 Aladdin Program
520 Air Warrior, V2.0B
553 Aladdin's Magic Browser V1.1
553 GE files in Aladdin format

Utilities
475 HyperScreen
475 STDCAT V4.3
489 Shreader V1.1
489 Hot!Stat V1.1
490 Virus Killer V3.11
490 Hospital
490 Super Virus Killer
490 Flu
492 FastCopy III
492 HyperFormat
492 ARC Version 6.02
494 GFA Shell Plus
503 NeoDesk 3 D.
503 NeoDesk CLI D.
506 TLC-Play
506 TLC-Namr
506 TLC-Form
506 TLC-Attr
506 Mouse–db V3.0
506 Spirit Editor
506 A1-Time
506 Clock-5
506 Mouse Accel. V3
506 Ocultarx
506 Idle-22
506 UnLZH V1.72
506 Volume
506 ST Sentry V5.1
519 Printer Utilities
531 Quick ST 2.2 D.
531 Little Green Selector V1.88
531 Gram Slam Grammar Checker D.
548 Backup ST
548 K-Text V1.33
548 SText V1.1
548 PFXPAK
548 Library Master
548 TX2-View V1.35 D.
548 Pinhead V1.8
548 Bigcolor V1.05
548 SANDP V2.1
549 Arc to LHARC Switcher
549 Arc Shell V2.3
549 UNLZH V1.61
549 ARC V6.02
549 LHA V1.21
549 Arcgsh V3.5
549 Unerase
551 SuperBoot V7.0
551 Autosort
551 Digiedit
551 Picswitch
551 SnapIt
551 MassKill
551 FormDoIt

Note: A (C) indicates color monitor, (M) monochrome monitor, and "D." a demonstration version. These disks are all available on a single 44 megabyte Syquest removable cartridge ($119.95 plus $4 S&H). Disks can also be ordered individually for $4.00 each (10 for $35) plus $1 S&H for every 6 disks. Order from Current Notes Library, 122 N. Johnson Rd, Sterling, VA 22170. (703) 450-4761. VISA and MC orders accepted.

STARTING BLOCK

by Richard Gunter

Text Editor Accessories

This is the first of a couple of columns dealing with a particular class of text editors--those that can be used as desk accessories (DAs). You can find at the end of this column a list of the six editors we'll be discussing, along with their sizes.

As we've seen earlier, a text editor is a program used for creating and editing ASCII text files. An editor that is also a DA can be an exceptionally useful item.

"Why a DA," you ask? Glad you did. Desk accessories provide ST users with a limited kind of multitasking: the ability to do two things at once, or at least without terminating one application to load another.

Suppose I'm reviewing a GEM program for this publication. I'm happily banging away with the thing and need to take a few notes. Out comes the paper and pencil. The notes (if I can read them) are later cleaned up for use in the article.

If I have a text editor DA loaded, I don't need the paper and pencil. All I have to do is whip the rodent over to the desk/Fuji dropdown menu, activate the editor, type a few notes and then go on about my business. This is faster and a lot more convenient, since I don't have to switch gears at all. Besides, my computer desk doesn't have much writing surface.

Since the DA (and its text buffer) stay in memory, I don't have to save each time I use it; only when I'm about to shut down, reboot, or crash the system...

Setting our Parameters

Let's summarize the requirements for this survey. First, I was looking for text editors which can be loaded as desk accessories. A suitable program should be able to handle text files of up to a few thousand bytes and it should operate at reasonable speed.

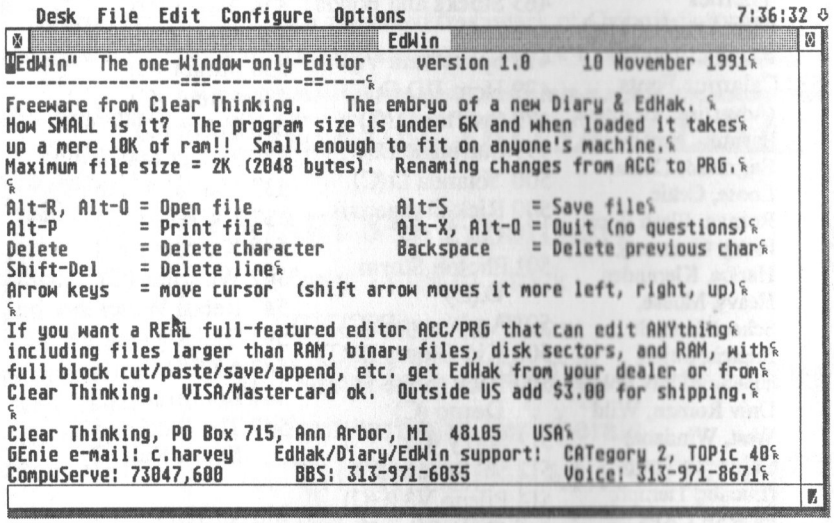
The program should not have an unduly large memory requirement. After all, it will be sharing memory with other DAs and applications. A program that hogs memory would be unacceptable.

Finally, I wanted a core set of features covering most of the things I look for in a text editor: string search and replace, cut and paste for blocks of text, word wrap, ability to position at either end of a file, and delete operations for characters, words, and lines. Print capability is nice to have, but not required.

Something VERY Different

Sudden View, a commercial product by Sudden, Inc. got a pretty cursory look and is not included in the statistics because I have only a demo. The (crippled) demo is quite a bit older than the recently released commercial version, so I didn't think it would be fair to attempt discussing it in any depth. No screen illustration is provided here since the demo intercepts the key combination my snapshot program uses.

Sudden View has a lot of features and is very fast, but has a novel "look and feel"--so much so that I'd recommend trying it or the demo before purchase. Jerry Pournelle is said to have mentioned it favorably in his *Byte* column, and I know an owner who bought on the strength of watching the author demonstrate it.



EdWin

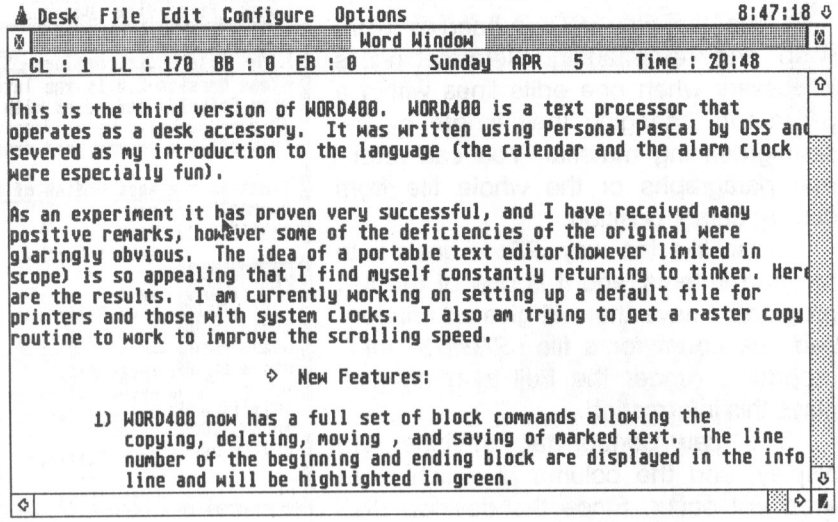
EdWin is by far the smallest of our editors, taking up 13KB by my measurement. Craig Harvey (also author of *EdHak*), claims 10K, but who's quibbling? *EdWin* is freeware. The screen illustration above shows *EdWin*'s screen with its documentation file loaded.

This is a VERY limited program, entirely keyboard controlled. The arrow, [BACKSPACE], and [DELETE] keys work as you'd expect; the [ALT] key is used with other keys for most functions.

The mouse cursor remains visible, but is not active; i.e., it is not used by *EdWin*. There is no cut/paste support, but you can delete lines (one at a time). You can open, save, or print a file. There is no word wrap. *EdWin* is limited to a maximum file size of 2K, all that will fit in its default full-screen window. It can be used

as either an ACC or PRG, but I can't think of any reason for running it as a PRG.

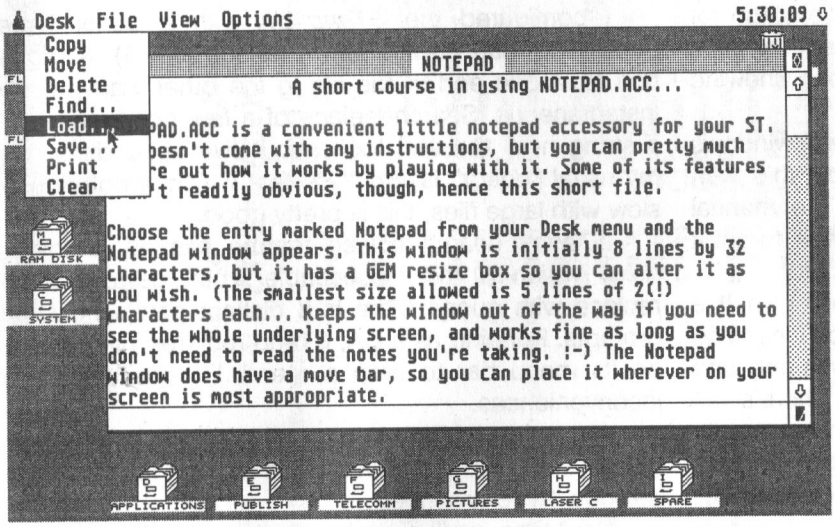
That's it, folks. However, within its limits, *EdWin* works, and has appeal if RAM is severely limited. It will suffice for short notes to yourself, such as those I made while testing it.



Notepad

The author of *Notepad*, also freeware, is unknown. Bill Aycock, one of the CompuServe Atari Forum sysops, discovered it and compiled a short documen–tation file based on his experiments. Thanks, Bill!

Notepad has one "feature" that limits its usefulness. Although it makes ASCII text files, it does not use the usual CR/LF sequence as its end of line indicator; rather it uses only the CR (carriage return) character. If you create a file with *Notepad* and display it from the desktop, all you'll see is one line instantly overwritten with the next, etc. Very hard to read, and a little hard to edit with any other editor.



Dave Stuart, another CompuServe user, informed me that he finds *Notepad* useful for editing data files made by programs like *CARDFILE*, which stores its data as character strings with a single CR as an end of record delimiter. Such files are difficult to edit externally with most editors, but are no problem with *Notepad*.

To reach *Notepad*'s command menu, first invoke the accessory in the usual way. Once its window is open, return the mouse pointer to the accessory dropdown and click again on the *Notepad* entry. The command menu will drop. Different...

Unless you have a specialized task like Mr. Stuart's, I can't recommend *Notepad*. Its functions fall a little short of my list, and that CR/LF incompatibility is a real drawback to general use.

Word 400

The "400" part of this freeware program's name is due to its hard–wired 400 line buffer limit. There are a couple of interesting ideas in this program, notably the alarm and calendar functions. Unfortunately, it isn't properly debugged, so I didn't bother to try everything.

Word 400 clobbers the system clock on my Mega ST to October 6, 1986 when first used. I can reset the clock with a function key, but I didn't buy a Mega in order to continually worry about doing that sort of thing. The program saves a file (TIME.INF) containing encoded date/time information that seems to be used to reset the clock after the next boot. At best, this means your system time will quickly deteriorate.

It doesn't help that this program also messes with the screen colors on a color monitor, then doesn't restore them on exit. Nope, sorry. Stay away from this one; there are better–behaved programs.

STeno

STeno comes from Gribnif with a nicely organized and well–illustrated 40–page manual. We'll forgive a few grammatical errors and typos; it's still a pretty good manual. *STeno* can be used independently, or in combination with *STalker*, Gribnif's telecommunications program.

STeno operation is entirely consistent with the expected "look and feel" for a GEM program. There are keyboard alternatives for most controls, and the dropdown menus are clearly marked and laid out. *STeno* can be run as either an ACC or a PRG (stand–alone program).

When run as an accessory, *STeno* displays the name of the currently loaded file in the accessory dropdown menu, or the word "Untitled," if no file is currently loaded.

I like the way *STeno* handles word wrap and reformatting. Reformatting is necessary when one edits lines within a paragraph, changing their length by inserting/deleting material. You can reformat paragraphs or the whole file from current cursor position.

I also like the way *STeno* deals with hanging indents, and it is one of the few programs I have that will give an unadorned line count for a file. *STeno's* "Info" dropdown (under the Fuji symbol) displays this information.

You can control tab settings, tab display, and the column at which word wrap will occur. Since the desktop displays tabs every eight spaces, a file containing tabs may look funny. You can avoid this surprise by having *STeno* expand the tabs to spaces when the file is saved. [CONTROL]+[ENTER] toggles display of the CR symbol.

STeno produces a nicely formatted hard copy on the printer, with a banner line bearing the file name, date, and page number. There is a menu selection for setting up the desired printer options. A nice little touch is an unobtrusive mark in the edit window, showing where the page boundaries will occur.

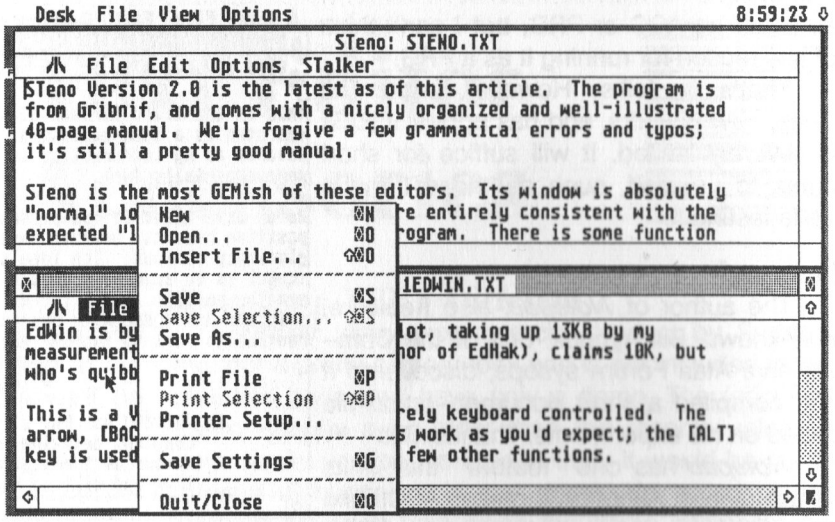
For those who would like to have two windows open simultaneously, there's a way to do this with *STeno*. It's a little clumsy, but it works. The manual alludes to the stunt, but doesn't describe how to set it up to do this. Here's the procedure.

Make another copy of STENO.ACC and give it a different name, say, STENO1.ACC. You don't need to mess with the RSC file. Boot your system with only one copy active. In the Options dropdown, there's an option to allow you to set this copy of *STeno* so that its legend in the accessory window will be slightly different from the other copy. Having done this, you can tell which copy you're running.

Now boot with both accessories active and run them. Arrange the windows the way you want. Now your screen looks like there are two windows open for the same application. Actually, you are running two semi-independent accessories. The illustration shows two copies of *STeno* running as accessories, the lower one with a dropdown menu open to show how the menu is displaced to keep it on the screen.

STeno uses the Atari "clipboard" (a hidden file named SCRAP.TXT), in its cut/paste operations. If you set preferences for both copies of the accessory to the same path, there will be only one clipboard, and cut/paste operations will work between the two windows.

The fly in the honey jar is that you've consumed two accessory slots with *STeno,* and twice the memory of one copy. You can adapt this technique to a setup requiring only one accessory slot by loading one copy of *STeno* as a DA and running the other as a PRG application.



STeno uses a fixed-length buffer; that is, you must configure it to the buffer size you want, and that size is allocated permanently. As a stand-alone PRG it will adjust its buffer size for large files.

I configured the *STeno* DA with a buffer large enough to load an *ST Report* (about 160KB). Navigation from one end of the file to the other was virtually instantaneous. Search/replace of a few occurrences of a string near the end took about five seconds. Since my usual "editor" is *Word Perfect,* which is notoriously slow with large files, this is pretty good.

STeno's search/replace feature has an annoying delay which is most noticeable when using search/replace with query; there is a distinct pause between prompts. Running as a DA, STeno requires you to click on its menu bar to drop a menu. These are minor inconveniences.

Altogether, *STeno* is a good product: comfortable to use, with all the features I was looking for and more besides. Recommended.

Next time, we'll examine the two remaining editors in the list, *EdHak* and the CodeHeads' version of MicroEMACS.

Accessory Editor Sizes

Name	Free RAM	Size	KB
Baseline	3991988		
Edwin	3981740	10248	13
Notepd	3919698	72290	71
Word 400	3851022	140966	138
STeno (45K buffer)	3854618	137370	135
EdHak 2.25	3918100	73888	73
CodeHead Ed	3787706	204282	200

Above data based on baseline configuration: Mega 2 with 4MBytes RAM, color monitor, TOS 1.4 with patches, Hotwire 2.3; no accessories loaded.

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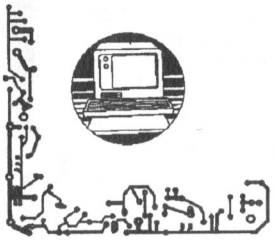
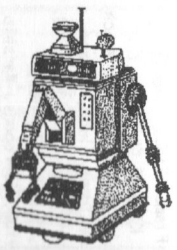


ST Bottom Fishing

Sinking Lower in the Food Chain

by Mike Heininger (c) 1992



Trolling for Truffles

Atari's 1040ST and Mega ST may no longer be state of the art at 8 megaHertz, but like automobiles that will "only" do 90 miles per hour, they are far from obsolete. That could be a surprise finding when you prepare to upgrade your aging Atari system.

After studying features and costs of the ever-cheaper IBM compatible 386 and 486 computers, even the most rabid Atarian cannot help admitting the new DOS stuff is hot: 33- to 50-mHz speed, hard drives routinely at or above 200 megabytes, super VGA of 256 colors on screen from a palette of 16 million colors, and screen resolution up to 1,024 x 768 pixels.

Best of all, a cornucopia of about 78 billion software programs—or so it seems in comparison to Atari's diminishing software. Compare it to trolling for truffles—normally you have to root for them, but with so many, even unorthodox procurement will snag something yummy.

But Is It Me?

Yet the awesome 386s and 486s may not be the optimum choice for all of us. Play like you indulge your ultimate car fantasy, and mortgage the house to buy a Corvette. Great looking, isn't it? Zero to 60 faster than your old car could reach 30 mph. Not great on slippery roads, but what the heck—just look at those sexy lines.

So what if the Corvette busted your budget, is more car than you will ever need, and will cost more in depreciation than practical wheels cost new. (Never mind about breathtaking insurance, eye-watering taxes, and appeal to car thieves—the point is made.)

Unlike changing cars, changing computer hardware is only half a transition; another major investment is required to buy new software.

Expensive Software

Not only new software, but often expensive new software. Atari's fine software—often professional quality in any crowd—rarely exceeds $200, but IBM and Macintosh professional software routinely lists at $200 to $600 and beyond. Some IBM and Mac users cushion their investment by using their office software at home. Piracy? Depends on the jury. It can seem fair enough—as long as two people aren't using the same working copy at the same time.

And IBM compatibles (but not Mac) do have plenty of more reasonable software designed for home use, e.g., integrated programs like *PFS:First Choice*, *Works*, and *Eight-in-One*. Games are close to Atari prices, and include many new classics that aren't even being designed for Atari (or Amiga or Apple II in most cases). Examples are *Chuck Yeager's Air Combat*, *Secret Weapons of the Luftwaffe*, and *Red Baron*.

Then Why Not Buy?

So why haven't I bought a 386 or 486? Four reasons:

1) My wife would kill me.
2) My wife would kill me.
3) I have too much invested in Atari ST software and equipment.
4) I really don't need power beyond 8 mHz.

"What!" you shout. "Are you nutso? Never admit you don't need more computing power. Power is what it's all about—there is *no such thing* as too much computing power. A Cray supercomputer is not too much power even for a recipe file. Recant!"

Well ... OK. Actually, I'm typing this on a Mega ST2 that today just got upgraded to 4 megabytes memory, TweetyBoard sound (3 channels) and a used AdSpeed enhancement to 16 mHz that I can toggle back to 8 mHz if software fights the greater speed. My Mega began balking at reading the floppy disk drives, so during the repair I yielded to upgrades after seriously considering just junking the Mega and joining the IBM compatible 386/486 frenzy. My Mega ST2 upgrade and repair cost $400. Pretty good value, even in the IBM compatible era.

Fore Ate He Sick

I'm sick enough of computer upgrade scheming to lapse into reverse vanity licence places: tee off on the search (fore), overindulge on data (ate), and get nauseated on another spin on the greed wheel (he sick)--fore-ate-he-sick; four-eighty-six; 486.

So soon we forget: the 8-megaHertz Atari 1040ST and peripherals bought in June 1986 were not so inexpensive after all. Figure about $2,200 for everything ... 1040ST with GEM TOS 1.0, SC1224 color monitor, external 3.5-inch 720k floppy disk drive, cables, paper, Panasonic KXP-1092 printer, 30 floppy disks, *VIP Professional*, *Degas*, *Procopy*, *Music Studio*, *Sundog*, *Time Bandit*, *Easy Draw*, and five public domain disks.

An excellent word processor (*First Word*), so-so art program (*Neochrome*) and two simple languages (Basic and Logo) were bundled with the 1040ST.

The first Atari store I bought from sold me 20 3.5-inch 720k floppy disks for $51.98. Isn't that awful? Fortunately, the bandit was not approved by major credit card issuers, so his store collapsed before I actually bought the 1040ST. I rebounded to L&Y where I have traded happily ever after.

$2,200 Then and Now

Let's use $2,200—not some mystical sub-$1,000 figure—as a realistic cost comparison with what now is available for first-time or upgrade computer buyers. Atari weighs in with a 16-mHz Mega STe 4/50 (4 MB RAM, 50 MB hard drive), GEM TOS 2.3 and mouse for $1,200, external double density 3.5-inch floppy disk drive ($150), SC1435 14-inch color stereo monitor (medium 640x200 or low 320x200 resolution, $380), and Panasonic KXP-1124i printer ($300) for just over $2,000.

Notice this includes no software programs, disks, extra cables, or paper. But it does include built-in stereo and MIDI. IBM compatibles have to add a sound board and MIDI connections for about another $300.

Macintosh, fearful of the IBM compatible menace, is finally dropping its prices out of the stratosphere, but generally still yields to IBM compatibles for all-around value. Lusting for a 386 or 486 is now perfectly understandable when you see prices like the following Gateway 2000 $2,145 offering in the April PC/Computing magazine:

33-mHz 386DX with Intel 80386 processor and mouse, 4 MB RAM, 120MB IDE hard drive, 64 cache RAM, 1.2 MB 5.25-inch high/double density drive, 1.44 MB high/double density drive, 16-bit VGA with 1 MB, 14-inch Crystal Scan 1024x768-pixel noninterlaced color VGA monitor, MS-DOS 5.0, MS Windows 3.0, and choice of application software such as one package which includes all of these—*Microsoft Works, Publisher, Money*, eight games including *Tetris*, and *TurboTax*.

Pluses and Minuses

Atari pluses are built-in stereo and MIDI, which cost about another $300 to add to IBM compatibles. Gateway 2000 pluses are higher resolution monitor (up to 1024 x 768 pixels, although because the pixels are so tiny the more practical resolution usually is 800 x 600), higher capacity hard drives for comparable money, floppy drives that can do high density as well as the usual 720k 3.5-inch double density (5.25 too), an extremely sensitive and capable joystick, multitasking in Windows, and the world's greatest amount of software for a given computer system.

Add a $300 soundboard with MIDI and a comparable $300 printer and the choice actually is between the Atari Mega STe 4/50 system for just over $2,000 and the Gateway 200 386DX system for $2,745—a $700 difference.

Notice this comparison was for a 386 instead of a 486. That's because IBM compatibles are the planet's greatest nickel and dimers. Who now buys a mere 386 when for only $350 more a much faster (because it includes a math coprocessor) 486 is available? Make that a Gateway 486DX system and the price difference is $1,050 more than the Atari Mega STe 4/50.

So the poor buyer who seriously intends to limit this computer purchase to $1,000 soon escalates to $2,000 and then—what the heck, best to buy it all at the same time, anyway!—$3,000. By golly, that way we won't outgrow this system for at least five years! No way!

More Power!

Which is probably true—mostly because most of us already have more home computing power than we need. Really, now, for home budgets and writing, rather modest software does quite well. But gee whiz, if we use that stuff at work, why shouldn't we use it at home? Especially since such "borrowing" reduces software cost to near zero!

That logic is a grand debate unto itself. Suffice it to say that when entering an IBM compatible software store, the first thing that strikes an Atari owner is the large signs brazenly demanding $200 to $700 for *one* item of software! This, while any Atari program that costs more than $100 is subject to the most intense scrutiny.

The second gasper is the lack of music software. Most software stores have virtually nil in the way of IBM compatible music programs, and don't do much better with Macintosh. In all fairness, music software is gravitating toward music stores, especially professional (and expensive) programs like *C-Lab Notator*, which reportedly is equal to or better than any music software written for any personal computer.

The Software Anchor

Therefore, when my Mega ST2 needed repair, naturally I waded through all these options. At first, when L&Y offered me a new Mega STe4 (without hard drive) for my ailing Mega ST2 and $675, I accepted. When an IBM compatible convert asked me why I stuck with Atari, the truth burst forth with stunning clarity:

a) I really like Atari, but most of all
b) I have invested so much money in Atari software, which still serves me well and which still is more powerful than I am, that it would be foolish to start over again with another system that will require around $3,000 worth of software to keep me happy.

$3,000? Yes. Fire up your spreadsheet and start itemizing what you have spent for software. Shocking, isn't it? How can that add up so fast and so far, especially at "only" $30 to $60 a whack for most Atari pro-

grams? The answer must be one of the great business secrets of modern times, because it completely surprises most computer users who swear they couldn't possibly have spent more than a couple hundred bucks—*certainly less than a couple thousand bucks*—for those innocent looking software packages.

Compatibility Surprise

Imagine my surprise when, after cranking up the Mega STe/4, I found much of my favorite software would not work with its new TOS 2.3 and 16-mHz speed. Maybe some of the incompatibilities could have been worked around later. But for the money and time required, that was not appealing. I loved the stereo sound but hated the idiotic wedding cake appearance (with the extensive top vents that were mostly covered by the monitor!). But the software incompatibility was not acceptable.

Oh, didn't I mention I still use TOS 1.0? Yes--not even 1.4. TOS 1.0 may be primitive now, but it is compatible with all my software. And I value compatibility more than jazzy updates that screw up this program or work only with such and such.

But my plugging in this and unplugging that was not for naught. I'm typing this on my obsolete Mega ST2 (upgraded to 16 mHz, TweetyBoard, and 4 MB RAM) using the obsolete TOS 1.0 on my obsolete *WordPerfect 4.1* (WP finally has officially abandoned Atari although claiming it will continue to support existing Atari WP users).

ST Bottom Fishing

My situation was astutely summarized at a recent Woodbridge Atari Users' Group meeting by Tim Fullerton, who claims he is quite comfortable "bottom fishing" in the personal computer world. For DOS needs, he and I chose the same Sharp MZ-100 IBM compatible laptop; although, with its 8088 10-mHz speed and dual double-density 3.5-inch floppies, it is as obsolete as our Atari computers.

Actually, my Atari 1040ST and Mega ST are hot stuff to Tim, who remains content with his Atari 8-bit computer. If I were starting fresh, like one son-in-law, I, too, probably would be unable to resist the overwhelming dominance and lowering prices of IBM compatibles, particularly the 486s. But I have a large Atari software library that serves me well. How can I just throw that away to buy much of the same stuff for a different machine?

Sure, I am still tempted at times. That 33 mHz literally is a life saver online playing GEnie's 45-player *Air Warrior* combat simulation. And the brilliant *Chuck Yeager's Air Combat* may be the most fun flight simulator I've ever seen. Like *Secret Weapons of the Luftwaffe, WordPerfect 5.1,* Microsoft *Excel, Falcon 3.0* and many other programs, *CY's Air Combat* will never be available to me because the manufacturer has abandoned Atari.

Europeans to the Rescue

If it weren't for European software and innovators like ICD who hang in there with products like AdSpeed, we Atarians would be really hung out to dry. The AdSpeed 16 mHz/8 mHz combination seems to be just what I need—souping up many programs but easy to toggle off if it interferes. Tonight for the first time in years I felt competitive again on *Air Warrior,* even against 33- and 50-mHz DOS and Mac opponents. My screen response again seems adequate, even compared to my friends' 486 Windows displays.

But what about the Atari TT with its 32 mHz 68030? And what about the Atari STe? Well, the TT with its TOS 2.06 reportedly only runs about 75 percent of existing ST software—maybe less. With a $550 multisync color monitor, it lists from $2,850 with 2 MB RAM and 50 MB hard drive to $3,675 with 8 MB RAM and 80 MB hard drive ($7,500 with 26 MB RAM and 340 MB hard drive). The TT does have 1280x960 high resolution and one high density 1.44 MB 3.5-inch floppy drive.

As for the STe models, their improved color range and stereo in the monitor are nice but they are only 8 mHz. Furthermore, their newer TOS is not compatible with some of the oldest software (which constitutes much of my inventory). For about $1,150 you can buy a 4 MB 1040STe with color monitor and AdSpeed 16 mHz installed. Not a bad choice hardwarewise, but Atari's declining software inventory makes starting over in Atari rather scary.

A few 68030 upgrade boards in development for STs could be exciting, but supposedly there is a limit just how much the old STs can be hotrodded. And the first 68030 prices are not competitive, costing around $1,000 or more for the best choices.

IBM Compatibles Usurp Motto

Then consider that all these wonderful advances are best appreciated with software that uses them. So how many software programs have you seen written especially for the TT? And how much Atari software is being upgraded to take advantage of STe features?

Like DOS, Atari models have now proliferated sufficiently that total compatibility from 1985 STs to 1992 TTs is impossible. In fact, since DOS only lately has enjoyed the benefits of graphic operation, the latest pure DOS programs often have problems running with DOS Windows.

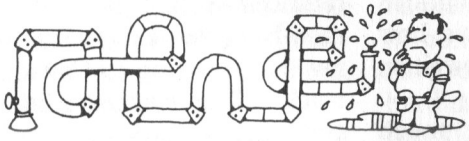
But in comparing TTs and STe's to 386s and 486s, the overriding concern is that less and less software is being written for Ataris, at least in the United States. Now which computer system deserves the motto Power without the Price?

Empathy for 8-bitters

At last I know how the 8-bitters felt when the ST came out. And I understand why they have clung to their trusty old clunkers, resisting the most skilled marketers' cajoling to get on the power bandwagon. What they have suits their needs just fine. So they spend their new money on something besides computers—what a novel idea!

Yeah, I'm sinking lower in the food chain now. While many of you leap out of the water for those 486s and TTs or flash past in a silvery glitter chasing 386s and STe's, a growing school of bottom feeders like Tim and I prowl the depths, awaiting whatever cast-offs that eventually descend to our discretionary triggers.

So far the catch has been pretty good: perfectly competent 8088s, 286s, and 68000s. Garlanded with a few cold boots from generational incompatibilities, we live the riddle of the flounder: Are our heads twisted from looking up for more bait or back for a net? Whichever, it's because not within memory has a consumer product succeeded so well in porpoisely driving us inseine.



Toronto Et. Al.

A Glance at the Canadian Show and More!

(c) 1992 by David C. Troy

O Canada

Well, Jennifer and I went to the Toronto Atari Federation's ACE '92 show and by every measure it was considered a successful show. She and I packed up a rental truck and carted a bunch of stuff up there. Seems like you Canadians love software.

When I went to the Dusseldorf show last August, I was just "reporting," not exhibiting, so I could pretend to deliver a somewhat accurate account of what I saw there. Since I had other preoccupations in Toronto, I'll limit my report to the things I observed and otherwise accidentally collided with.

Atari was there with much support, showing the ST Book, TT030's running X/Windows, and the new *MultiTOS* multitasking TOS. Based on Eric Smith's public domain *MiNT* (MiNT Is Not TOS) multitasking kernel, *MultiTOS* is a complete, multitasking GEM system. Atari has rewritten portions of GEM to cooperate with the *MiNT* kernel, and from what I've seen, it really works. The desktop is always accessible. Desk accessories will cease to exist as we know them. (Why have a desk accessory when you can truly multitask your accessory program from the desktop?) Programs will be able to run in windows.

MultiTOS, for Atari developers, is meaning that many functions which previously were handled with dialog and alert boxes need to be changed to window-based functions, although dialog and alert boxes may now be moved freely within a window. The idea is to allow the operating system to run an unlimited number of programs in self contained windows. As you can imagine, this new philosophy is requiring the revision of many programs which, in the past, considered themselves "the only game in town." These programs grab all of the computer's memory, instead of asking the operating system for its largest free hunk. *MultiTOS* breaks many, many programs for this reason. Who knows how many programs will be rewritten to support the new TOS?

There was, of course, much speculation on the new Falcon/Sparrow machine. From what I know it should run at 16MHz, include *MultiTOS*, and have a Motorola Digital Signal Processor chip. It should "replace" the STe series, and will come in an 520/1040 STe-type case. It should be available by Fall '92.

The show was the standard collection of folks: the CodeHeads, D.A. Brumleve, Dave Small and George Richardson, ICD, Bob Brodie. There were also lots of Canadian dealers and reps from Atari Canada. It's nice to see that the Canadian Atari market is as active as it is.

The show was professionally executed, and in every way lived up to the standards set by WAACE and the Chicago show. A savior for us music "civilians," the MIDI developers were confined to one nice, big room, where we could hear them *only* if we wanted to. There was a talent show of graphics and music at the banquet. We sang "O Canada" before the meal. Atari Canada provided free table wine. It was nice.

As a U.S. vendor carting stuff into Canada, I don't want to say it was "hassle-free" getting through, but the show folks put us in touch with a customs "broker," who handled our paperwork for a small fee. (Normally when traveling into Canada, a duty is assessed and charged at the time of entry, and refunded—sometimes several months—after exit.) That's not to say that traveling to Canada with a truck full of computer stuff is by any means easy—we had some hairy moments. But next time we go I think we'll have a better idea of what to expect. And any of you developers (or potential developers) who didn't go to the show because of customs worries should reconsider in 18 months, the planned date of the next show.

Neatest Finds

Goldleaf Publishing is now selling a product called *CompoScript*. It functions much as the old *Ultrascript* did—acting as a PostScript interpreter. But *CompoScript* goes further. It works right on TT030's (even with the 030 cache on). It will handle Type-1 hinted PostScript fonts. And it sells for about $350. But seriously, it makes the SLM804/605 (and other non-PostScript printers) into viable PostScript alternatives again.

Goldleaf also had a cute program called *MacRead*. It accomplishes what Gadgets' *Transverter* can't. It will read an HFS formatted hard disk partition and transfer files to the ST side. While it can't

read Mac format diskettes, even with a Spectre plugged in, it can read Spectre format HFS disks. This is really a nice utility. It's a royal pain having to use MFS partitions for Spectre file transfers, and this great program will undoubtedly have some application in the New World Order.

I'm sure you all know about CodeHead's new *Warp 9*. It's a reworked, revised, more compatible version of Darek Mihocka's famous *Quick ST 3*. CodeHead sold many copies of *Warp 9* to our Canadian friends.

Another product that I got just before I went to the show was Star Micronics' SJ-48 bubblejet printer. Selling at around $300, the printer is compatible with the very popular Canon BJ-10e, and about $50 cheaper. It, too, will run on batteries (or AC), weighs about three pounds, and has clear 300 dpi output. This printer is a great choice for Portfolio owners.

Back to the Basics

One thing that I promised to do when I began this column was answer questions for CN readers. Joe got one that he thought folks might like to hear about.

> Dear Joe,
>
> I have an old, noisy Atari SH204 hard drive. I am constrained by its small size. It plugs into the computer's HD port, but has no ports on it, so it must be the last device in any sort of chain.
>
> Is there any way to buy another HD and link it in serial so I do not lose my investment in my HD?

This reasonable letter is from Paul Adkins in Fort Leonard Wood, Missouri. All you ST-gurus out there be quiet for a second—Mr. Adkins has a decent question, and I can vouch that many folks just aren't sure of all the answers. So here goes.

Expanding on an SH204: All the Options

1. Easiest Answer

Buy another hard drive that's based on an ICD or Supra (revision 2) host adapter. Both of these have DMA OUT ports, and thus the SH204 can be plugged into the DMA OUT port. Mr. Adkins is correct in saying that the SH204 must be last, but that's fine.

2. Harder Answer

The SH204 contains three components: an Atari host adapter (AHD), an Adaptec 4000 MFM controller (4000A), and a Tandon (or Seagate) 20MB MFM hard drive.

The AHD converts signals from the DMA port into SCSI commands, which the 4000A understands. The 4000A converts SCSI commands into commands the hard drive can understand. Most hard drives you buy these days (for the ST) leave out a "4000A" component--the controller. Most hard drives can already understand SCSI, and thus need no conversion. This is fast.

Drives that speak SCSI are somewhat more expensive than MFM drives. MFM drives are becoming harder to find. But suppose somebody gives Mr. Adkins a lovely Seagate ST251. (Don't laugh—people give away hard drives all the time these days—especially when upgrading their brother's PC AT.) It's an MFM drive. It turns out that Mr. Adkins can link it into his system. It ain't easy, but he can do it.

The 4000A has "three" ports. One is a 34-pin connector. The other two have 20 pins. To "add" the ST251, Paul needs to make a 34-pin ribbon cable with three card-edge connectors on it. (You can probably find a cable already made, but if you can't, simply get some 34 conductor flat ribbon cable and crimp-on three female card-edge connectors (straight) using a vice or a crimp tool.) Paul also needs a second 20-pin cable, just like the one that's already in his SH204.

Simply mount the ST251 in a nearby hard-drive power supply (+5, +12) box. Plug the 34-pin cable into the 4000A, into the SH204 drive, and the ST251. Run your 20 pin cable from the ST251 to the 4000A's second 20-pin connector. Make sure you don't have any connectors plugged in backwards; this is typically done by making sure that "pin 1" on each connector is lined up with "the red line" on one side of your ribbon cable.

We also need to make sure that the 4000A can distinguish between the original SH204 drive and the new ST251. This is accomplished by setting the 251's LUN, or Logical Unit Number. (This is **NOT** SCSI address. LUN does not exist when talking about SCSI drives; it is **only** relevant when speaking about drives with controllers.) This is typically done by setting a jumper on the back of the drive. You'll have to consult the documentation for the specific drive to be sure which jumper to set, but if you've got choices of one through four, pick the second one. The drive is on the controller's second connector and the drive needs to match up with that to be recognized.

The hardware's all ready. All you need now is a copy of Atari's latest formatting software (HDX5) and you're ready to go. The SH204 is a 20MB drive and your new ST251 is a 40MB drive. You've got 60MB now, Paul. What did it cost you? Maybe $100 for the cables and the power supply, assuming you really did get the ST251 free from your friend's brother's AT. But you can tell just from reading that stuff that this is a pain—even if it is cheap.

3. An Easier Answer

Buy a small, SCSI embedded drive, put it in the SH204 case, and get rid of the 4000A. This might

cost you between $200 and $400 (for a 50-100MB drive), but you'll have something that's faster and more reliable (and certainly smaller) than two aging drive mechanisms.

Again, the easiest answer is to buy a completely new hard drive and just daisy chain the SH204 from it. Use it till it dies (which it will.) But, if you're up for adventure, the "add another mechanism" option is always there.

Send in those Questions

I want to get some questions to answer for next month. Send 'em in. Try to make your questions of "general interest." Sure, Emerson said that what's found in one man's heart is found in every other, but quite frankly people have different interests. Not all of our readers want to know how to attach an eight-inch drive to their ST.

My columns have been devoid of a "central piece of meat" for the past couple of months. Mind you, this is OK. I consider that type of column as "news," not philosophy, or instruction. Unfortunately, I fear I'm not much of a reporter. I like philosophy. I like projects. If anyone has any questions, worries about the nature of fish food, or planetary musings, drop a postcard. I've been so busy writing for work and school, (I think I'm up to 16 pages this week and it's just Thursday), I haven't had much time for recreational tinkering. So if anyone has any ideas they're playing with, let me know.

My Laser

I mentioned projects and almost failed to mention my laser. I brought a Helium-Neon laser to Toronto, along with two disk drive motors coupled with small gold mirrors. If I reflect the static laser beam off of one rotating mirror, and reflect that image onto the other rotation mirror, the two mirrors sum their displacement to create startling patterns on whatever surface the laser is aimed at. It's fun. If anyone has any experience with lasers, I'd like to hear about it. I'd like to try to interface the laser to the ST and to drive the mirrors with an ST controlled stepper motor. Might make an interesting project for a summertime CN article, huh? The laser certainly turned enough heads in Toronto.

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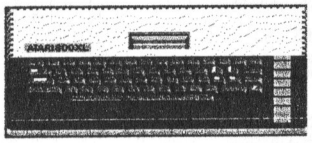
8 Bit Tidbits



Atari 8-Bit Computer Hard Drives

by Richard L. Reaser Jr.

Prolog

It's my third time at bat and they haven't kicked me off the team, yet. Amazing! I'm getting the reactions from my first column in the March CN and it is pretty exciting. I have a little mail to catch up on, but I promise to respond to everyone in one way or another. I'm getting into the swing of things and developing a routine of sorts to meet my deadlines. I did have a fairly significant self-inflicted hard drive fiasco earlier this month from which I am still recovering. I'm going to focus a bit on that little episode later in the column.

There will be three other 8-bit articles appearing elsewhere in this issue. After discussing it with CN publisher, Joe Waters, our goal is to have about 10 pages or so of Atari Classic material in every issue. I am going to try and group the articles by theme when appropriate. In commemoration of my recent hard drive crash, I've submitted two hard drive articles. Both are based on the ICD MIO approach. Author Charles Cole has the distinction of owning just about every 8-bit hardware item I have ever wanted to own. Author Jack Dewell is a former Atari employee. By the way, there is a good article on the CSS Black Box based hard drive by Don Lebow in the March 24, 1992 issue of Z*Magazine (Issue #206). Z*Magazine is an on-line magazine by Rovac Industries (Ron Kovacs) available on GEnie, CompuServe, Delphi and other fine information services near you.

The other article appearing in this issue has an interesting background. At our last club meeting, one of our members, Lee Barnes, brought in his modified 1050 disk drive. It was such an unusual thing, I ran home, got my camera and took a picture of it. I asked him to write it up and he mailed me a disk a few days later. Lee drives 100 miles one way to come to our club's 8-bit SIG meetings each month. That's Atari 8-bit die hard dedication!!!

Yet to Be Published Articles

Some of you have turned articles into CN and probably wondered what has happened to them. I have them. They will be appearing in upcoming issues of CN over the next few months. Here is a list of the articles I have.

SpartaDOS X-Cart Toggle Switches (Charles Cole)
Ultra Speed Operating System (Charles Cole)
FidoNet (Steve Leser)
Bresnik Mathematics (Gail Westendorf)
Data Perfect Revisited (Chris McCoy)
3 1/2 Disk Drive (Charles Cole)
Diskbase (Charles Cole)
BobTerm (Charles Cole)
Quintopus (Charles Cole)
Syncalc Budget (Unknown, please contact me)

Roger Meston has an article in the works comparing disk library programs. I believe someone out there is doing a review of LJK's *Movie Credits* for CN. If anyone else has submitted an article not listed above or is interested in writing, I hope to hear from you soon.

8-Bit Magazine Campaign Update

Jeff McWilliams and Ben Poehland's effort to start a dedicated 8-bit magazine is continuing. As of April 4, 1992, 1,500 kits had been mailed out and respondents had returned 350 of the post cards. They are out of kits and still receiving requests for them. If you haven't mailed back your post card and still are interested, please send it in, even if the deadline is past. There are now campaign reps in all major English speaking countries. Don Scotting is heading up efforts in New Zealand and Dave Blears is handling things in Australia. For further information, please contact:

Jeff McWilliams
2001 G. Woodmar Drive
Houghton, MI 49931-1017
GEnie: J.MCWILLIAM3
INTERNET: jjmcwill·mtus5.mtu.edu

OOOPS!!!

My apologies to Bob Puff for calling his *Disk Communicator*, "Disk Commander." For several years now, I've called it "Disk Commander." I called it "Disk Commander" when I last spoke to him on the phone. (He was polite enough not to correct me.) Anyway, while loading it up a few days ago, I read the title screen. Now I'm slightly embarrassed. Sorry, Bob.

My Hard Drive Crash Story

About the only bad thing I've come across in my three years of using a hard drive with my 130XE is that I have a tendency to crash it about once a year. Of course, it always happens at the most inopportune time. I thought I would spend a few paragraphs this month talking about how to crash your hard drive. I will also provide a few tips on how to prevent, recover and, finally, safeguard against the experience.

The most common 8-bit hard drive crash is the one where you make the first 700+ sectors into a bootable floppy. I have done this twice with Bob Puff's *Disk Communicator* and, most recently, with *Unscrunch*. Both of these programs take a file and expand it into a bootable disk. If the destination disk is your hard drive, by accident...

Now, I use *SpartaDOS* with my hard drive. The first few sectors of any *SpartaDOS* disk are very important. They tell where everything is on the disk. If you write over these sectors, your computer can't figure out where the files are. So, if you write over the beginning sectors of your hard drive, you are in trouble.

One trick some people use to avoid this mistake is to "write lock" their hard drive. This is sort of like putting a write protect tab on it. This doesn't always work, since it is usually a software lock provided by your DOS rather than a physical lock. (Bob Puff claims to have provided a "true" write lock with his Black Box.) If a program bypasses your DOS vectors, the software lock won't work. In my opinion, a write lock on the hard drive is not real convenient, since most of the time you are trying to fill the bugger up with stuff.

If you are a *SpartaDOS* hard drive person, you are incomplete if you don't own ICD's *SpartaDOS Toolkit*. There are two programs in the Toolkit that are essential—*CleanUp* and *DiskRX*. *CleanUp* is for minor boo boos that occur, especially when programs decide to do subtle things to your disk without asking *SpartaDOS* first. *DiskRX* is for those occasional irritating nuclear meltdowns. If you've written over the first 720 sectors, you're ready for *DiskRX*. Get ready to learn Low Byte/High Byte Hexadecimal as well.

SpartaDOS does not use file links like Atari-type DOSs (which includes *MyDOS*). With Atari-type DOSs, there are pointers within each data sector that tell where the next data sector is. *SpartaDOS* has special sectors (sector maps) that tell what all the sectors are in a particular file. Additionally, there are directory sectors that tell where these sector maps are for each file in a directory or subdirectory. Before you go nuts, the sector maps show the sectors in Low Byte/High Byte Hexadecimal. You need to read all about this in your trusty *SpartaDOS* manual. It's only five pages long in the *Construction Set* and *X* versions. Both my books open to those pages.

These directory and sector map sectors look different than other sectors. Directory sectors have file names buried in there. Sector maps have pretty patterns in them and unless they are very long files, sector maps start out with four zero bytes. OK, here's my strategy for recovery.

DiskRX allows you to scan a disk, sector by sector, fairly quickly. It shows a sector in both Hex and ATASCII at the same time. It also has a feature that allows you to write a file to another disk (preferably another hard drive partition) just by identifying the sector map. I hold down the "fast forward" key and let the sectors fly by until I think I see a directory sector or sector map. I write down the sector number (in Hex) for directory sectors I spot. When I find a sector map, I used Option 2 from *DiskRX* to save the file to another disk by pointing to the sector map. I name this file with the Hex location of the sector map. If I can tell what kind of file it is, I add an appropriate extender. Boot files are easy to spot with the "FF" as the first two bytes. ARCed files have the name of the file near the beginning of some pretty random looking stuff. If you can't recognize a text file, you wouldn't be reading this column.

Many, many hours later you can go back to the directory sectors and see what file names point to what sector maps and match the real file names to the files. I'm still doing this on my trashed partition. For the things needed right away, I used *DiskRX's* ATASCII search feature. Normally, sectors of a file are fairly contiguous, so the sector map is easy to find, once you've located one sector in the file.

The Express Cartridge files, PHONE.LST and CONFIG.EXP cannot be recovered using Option 2 from *DiskRX*. These two files, that you never write or print out, have all your BBS passwords, long distance codes and phone numbers. They are basically priceless. They also contain those auto log-on routines that took forever to get the timing right. Find the sector maps for them, print them out and use Option 1 to tag each sector individually in order and write to a file. This saved my life a couple of times.

I'd be remiss if I didn't mention prevention measures. My standing rule is to always back up my hard drive right after I recover it. The next time I back it up is after the next crash. This is the same technique I have used with the stock market—Buy High, Sell Low. Both of these techniques are not for everyone.

There are at least two PD back-up programs that back up the important beginning sectors of a disk—*HDBACK* and *FATBACK*. The two full-featured back-up programs are ICD's *FlashBack* and CSS's *HDPRO BACKUP!* Both of these can use the *SpartaDOS X* archive bit! CSS's offering has more features than ICD's, but costs more. Bob Puff (out of pity?) sent me a copy of *HDPRO BACKUP!* a few days ago after hearing of my plight. We'll try to get a full feature article comparing all the 8-bit hard drive back up options for a future issue.

Remaining ICD 8-bit Items

I spoke to the folks at ICD on March 17, 1992 to see what was left, and the shelves are almost bare, folks. With the exception of the following items, everything is on "terminal back order." Unless there are a whole lot more orders (1000?), they will not be going back into production on anything. This is mainly of concern to those who were looking for *R-Time 8* and *SpartaDOS X* cartridges, the two items with the most interest. ICD is still willing to sell the rights to their 8-bit line. If someone picks up on this, the back orders, as well as residual piece parts to make stuff would undoubtedly be part of the deal. Call ICD management with your offer to buy the rights.

Here's what was still left as of March 17:

US Doublers bundled w/SpartaDOS	$34.95
Rambo XLs	$19.95
FlashBacks	$14.95
Action Toolkits	$14.95
MAC 65 Toolkits	$14.95
3 1-Meg MIOs (may cut deal on these)	$350.00
Assorted Modem and printer cables	

That's it! I'm glad I got my *SpartaDOS X* during their big sale. Now I just need to wean myself from 3.2 and switch over. Contact ICD at:

ICD, Inc
1220 Rock Street
Rockford, IL 61101-1437
(815) 968-2228

8-bit Off-line Readers

While perusing FIDONET, I was whining about the lack of 8-bit off-line readers. You may have seen the fancy systems that the ST and MS-DOS boys have—*Aladin*, *CIM* and *QWK Mail*. Well, Bobby Clark from Knoxville, Tennessee responded to my pondering. He is working on a FIDONET reader for 8-bits that works with PC board, *Spitfire*, *Teleguard*, and *Wildcat*. He already has an off-line readers E-mail system that works with *WWIV*.

The programs are written in BASIC. The concept is to first capture the entire message base into a text file. The program then looks for keywords and formats the information onto the screen conveniently and queries if you want to reply to the particular message being viewed. Replies are stored in the correct format with appropriate delays so they can be ASCII uploaded to the board with little effort. The project should be done late this summer. I will keep you posted as things develop.

Catalog Spotlight

I had the recent pleasure of receiving the Fall 1991/Spring 1992 catalog from Computer Software Services (CSS). I was pretty impressed. CSS has a lot of useful and interesting products. (Just ask Charles Cole. He owns most of them.) To get a catalog, contact CSS at: Computer Software Services, P.O. Box 17660, Rochester, NY 14617. (716) 429-5639

CompuServe/GEnie Update

In spite of my hard drive problems, I have managed to poke around CompuServe a bit more this past month. I actually like it now. There is a regular cast of characters who frequently visit the message bases. The SysOp, Ron Luks, who was recently featured in an AIM interview, is super and keeps forum members informed about the latest uploads. That is really nice. The E-mail system is pretty easy to use as well.

On GEnie, two very good guys named Lawrence E. Estep and Oscar M. Fowler have been uploading the Atari Info-8 digests from INTERNET into the GEnie 8-bit Libraries. These digests are a valuable source of information and, in most cases, well worth downloading. CompuServe also has these digests and a direct link to INTERNET. A good article on INTERNET would be appreciated, if someone cares to write it.

Starting next month, I will be expanding my coverage of GEnie and CompuServe to include upload highlights as well as hot news from the message bases. After reading an article in AIM on Delphi, I may check into that as well. Any recommendations about that?

Epilog

That's it for this month. Write, call or E-mail your requests, questions or complaints to:

Rick Reaser
4625 Whimsical Drive
Colorado Springs, CO 80917-3120
Home: (719) 380-8082
Work: (719) 554-5905
GEnie: R.REASERJR1
CompuServe: 72130,2073

Cursors Correction

[In the Fun with Cursors article last month, the last part of the program was left off of the listing. (My goof entirely -JW) Below is the program listing again; this time in its entirety.]

```
1 REM ******************************
2 REM Joystick/Cursor Routine
3 REM by Jerry White & Ted Stockwell
4 REM Modifications by Ed Hall
5 REM ******************************
10 GRAPHICS 0:? CHR$(125):POKE 752,1
20 POSITION 16,3:? "XXXXXXXXXX"
30 POSITION 16,4:? "XXXXXXXXXX"
40 POSITION 16,5:? "XXXXXXXXXX"
50 POSITION 16,6:? "XXXXXXXXXX"
60 POSITION 16,7:? "XXXXXXXXXX"
70 POSITION 16,8:? "XXXXXXXXX"
80 POSITION 16,9:? "XXXXXXXXX"
90 POSITION 17,10:? "XXXXXXXX"
100 POSITION 18,11:? "XXXXXXX"
110 POSITION 18,12:? "XXXXXXX"
120 FOR LOCATION=272 TO 272+47:READ BYTE:POKE
LOCATION,BYTE:NEXT LOCATION:RESULT=USR(272)
130 DATA 104,160,27,162,1,169,6,32
140 DATA 92,228,96,206,63,1,208,24
150 DATA 165,0,141,63,1,173,120,2
160 DATA 73,15,240,12,162,255,232,74
170 DATA 144,252,189,59,1,141,252,2
180 DATA 76,95,228,142,143,134,135,5
190 POSITION 9,9:? "JOYSTICK "
200 ROUTINE=(PEEK(106)-6)*256
210 FOR ME=0 TO 60:READ IT:POKE ROUTINE+ME,IT:NEXT ME
220 POSITION 7,9:? "CONTROLS XXX"
230 FOR ME=61 TO 120:READ IT:POKE ROUTINE+ME,IT:NEXT
ME
240 POSITION 7,9:? " CURSOR XX"
250 FOR ME=121 TO 180:READ IT:POKE ROUTINE+ME,IT:NEXT
ME
260 POSITION 10,9:? " XXXX":POSITION 2,10:? ""
270 DATA 104,165,212,24,105,36,133,212
280 DATA 165,213,105,0,133,213,162,7
290 DATA 160,144,177,212,157,0,6,136
300 DATA 202,16,247,164,212,166,213,169
310 DATA 7,76,92,228,173,240,2,240
320 DATA 124,173,43,2,240,4,169,0
325 REM CHANGE 8 TO 255 $06FF (330)
330 DATA 240,6,173,255,6,24,105,8
335 REM CHANGE 8 TO 255 $06FF AND
336 REM 255 TO 254 SO IT DOESN'T
337 REM GET ERASED (340)
340 DATA 141,255,6,48,104,160,254,169
345 REM CHANGE 8 TO 7 $0607 (350)
346 REM CLEARS FROM $06FE TO 0607
350 DATA 0,153,0,6,136,192,7,208
360 DATA 248,169,10,141,194,2,141,28
370 DATA 208,169,1,141,111,2,141,27
380 DATA 208,169,0,141,10,208,169,0
390 DATA 141,7,212,169,2,141,29,208
400 DATA 169,58,141,47,2,141,0,212
410 DATA 166,85,164,84,165,87,13,147
420 DATA 2,240,12,173,191,2,201,4
430 DATA 208,35,152,24,105,28,168,138
440 DATA 10,10,105,48,141,2,208,152
450 DATA 10,10,10,105,39,168,162,7
460 DATA 189,0,6,153,0,6,136,202
470 DATA 16,246,76,98,228,169,0,141
480 DATA 2,208,76,98,228
490 DATA 12,24,48,96,48,32,64,128
500 RATE=25:POKE ROUTINE+55,RATE
510 CCOLOR=28:POKE ROUTINE+74,CCOLOR
520 POKE 0,2:CURSOR=USR(ROUTINE):NEW
530 REM ******************************
540 REM Line 490: cursor shape data
550 REM Line 500: set blinking rate
560 REM Line 510: set cursor color
570 REM Line 520: poke cursor speed
580 REM ******************************
```

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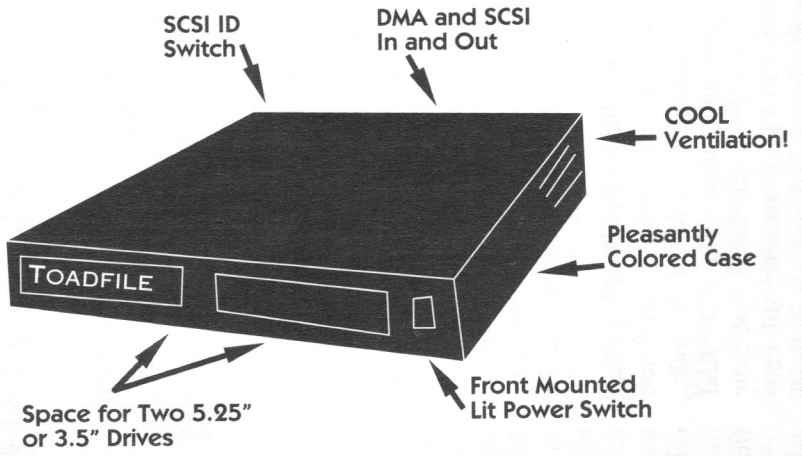

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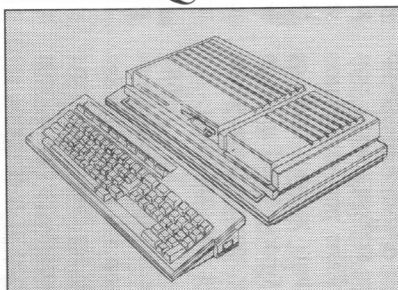

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Items Are Listed In No Particular Order.

Spring & Summer

☛ Winter is slowly but surely giving way to the warmth and raw flavor of spring, and our Spring/Summer catalog will be out very shortly. The Spring/Summer catalog will be our biggest and best printing effort yet! We're moving, too! A tremendously large location is being prepared for us now, and we should be in by Summer! We're not moving far, though — just across the street! Call for more information. Thanks for your continual support. We appreciate it.

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"Use your head instead of a hat rack." – J.E.D.
"A foolish consistency is the hobgoblin of little minds." – R.W.E.
"The wise man built his words upon the rocks, but I'm not bound to follow suit." – R.E.M.

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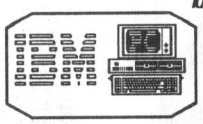
Small World

Rationality

by: Dave Small, Copyright 1992



Right now my son Jamers is wailing at Sandy, "Wanta Bobba!" (Translation: "Mother dear, it would please me highly if you would get me a bottle.") "Wanta Bobba! WANTA BOBBA!" (He believes that repeating a phrase gives it more emphasis, like italics or bold-face or something.)

Now Jamers (3) has a cold, and doesn't feel that great, and honestly, a "bobba" isn't going to help him that much. But he doesn't really care. He knows that every night for many past months he's gone to sleep with a "bobba," It's comforting, and he wants that feeling.

Now let's compare Jamers to an Atari user, (or in fact, to just about any computer user.) He has bought this Atari machine and would like to be comforted that it was a good buy. It's not strictly necessary, as with Jamers and his "bobba" to make him feel better for a cold, but it is a comfort, and psychologically pretty "warm fuzzy."

For years, the users have been bombarded with propaganda about how they need the best and fastest computers. It doesn't get stale, either, because the best and fastest *change* every six months or so, so it's always The Newest. (The laptop I'm writing this on was considered excellent when Sandy got it for me for a present; now there are Better Things around.) Unfortunately, this propaganda is oriented towards the PC and the Mac, not the Atari.

When these users open up *Computer Shopper*, they are deluged with ads for 486/33 and 386/40 and 486/50 and P5 Is Coming (586) and whatnot. There are gallons of PC magazines with everything from tips for beginners to how to program in assembler to how to program in "C." (Just as well; given the nature of PC assembler, "C" is a better language for it. And you know how much I adore "C.") Bookstores are loaded to the hilt to explain the remarkably bad user interfaces and manuals of hundreds of PC products. (Microsoft reportedly makes one fourth of its income through book sales!)

By comparison, there is very little on Atari. Certainly, *Current Notes*, *AIM*, *Atari Advantage* and *Atari User* and others. But we're on the outside looking in.

All this has a very unsettling effect on the Atari User, because the bottle they're getting fed is full of PC milk, not Atari milk. Blue milk, yuck. And they want to be comforted that their Atari is still a good machine, still considered hot and fast and sexy. There are not new Ataris coming out every six months. It is deeply unsettling for them to see *Computer Shopper* drop its Atari coverage, for example. I am not saying this to put down Atari users; it is natural to want peer approval, for example.

They are not getting what they want, and just like Jamers, they howl about it pretty loudly. I wouldn't want to open mail at Atari every day with complaints and suggestions and whatnot. (The Gadgets mail is enough to drown me daily.)

This PC milk also has an unsettling effect on Atari developers. When you're constantly being spoon-fed a diet of HowWonderful it is to use a 486-Windows, it's hard to stay excited and interested in the ST. When Windows sells 3 million copies, it's hard "not to jump" into the IBM world. (Indeed, many developers have jumped.)

One thing Atari users would like to see, for instance, is advertising. Why? Partly to see if Atari is still committed to the ball game, of course, but also partly to have their hand held, to tell their friends that they bought a non PC nor Mac and like it, and the company is *real*—just look at this ad. I think the reason many people want to see Atari shed its game image is so their friends will quit saying, "Oh, the game machine," when they hear the word "Atari." So there is a lack of support from Atari in a needed human psychological way, and a seductive lure from all those PC and Mac magazines. Just as if Mom won't give Jamers his bottle, he'll come charging up to Dad (me) and ask for one. He wants that reassurance desperately. Why, he might even try a PC or Mac bottle, just to have *something*, since it ain't coming from Atari.

It gets me, too. I sometimes wonder about going to the PC and Mac, because of all the subliminal push towards them. And then I do a reality check.

It's stupid of me, but I waste time periodically and read the PC and Mac magazines. Now I damned well know for an absolute fact that at least two of these mags have a policy where you can pretty well buy a good review! And one is nothing more than a worthless, Pravda-like reprint of company press releases. (Pravda translates to "truth," by the way). And I get a little bit brainwashed.

Shopping Time

Every six months or so, I confess, I give in to this seductive feeling and go "check out" the PC's and Macs. By the time the day is over, I am once again convinced I want to stay in the Atari world. Lordee! What an incredible incompatible pile of hardware, software, and illiterate sales people!

(The worst one technically was the nicest; he confided to me he had just come off a job selling time-share condominiums...)

I recommend this shopping experience to you as one of the quickest ways

to remember once again how neat the Atari machine really is, and to put in perspective the problems we may have.

The first thing "they" do at stores is check out your clothing. Do you look like a $10,000 system sale? In my "Soldier of Fortune" magazine T-shirt and jeans, I don't look like a big customer. So I shake them up, briskly drop buzzwords on them like SCUD missiles, and mention how nice it is to get away from the suit and tie over the weekend. My job? "We make accelerator boards for PC's." (True enough). My computer? "Oh, we use Mac IIFX's networked to a LaserWriter NTX." They get a little green around the gills, then guide me from the "cheap throwaway 286 clone" aisle to the "number cruncher 486" aisle.

"Oh, and did I introduce my wife Sandy?" (whom they have been ignoring). "She's President of our company, handles all the marketing and machine purchasing. Got a degree in Comp Sci." At this point, the salesmen are just about to piddle in their shoes; needless to say, they try to make up for lost time with Sandy. She does her Enigmatic Look at them.

Igor, Throw the Switch!

So they switch on some big blasted box that could serve as a bomb shelter for a 520 ST, and a year later, the screen lights up. Street lights dim outside. A bunch of nonsense about CONFIG.SYS and AUTOEXEC.BAT scrolls by, and finally, I'm ready for that thrilling prompt, "C:›."

Yes, I've just stepped backwards 15 years to CP/M giving me an "A:" prompt. Progress. The theme song should be "Going Back in Time." All I can think of by way of analogy is putting a V-8 into a rollerskate. Yes, it's been sped up, but it's still the same, cruddy, yucko command-line interface! And tell me, why is it useful for the DIRectory display to scroll so fast I can't see it?

And can you believe *this*? Instead of clicking on a folder with a mouse, I actually have to type the silly thing's name in! I can't just grab a file and move it around, I have to type "pathnames" and other nonsense! And if I make a typo, which I do a lot, I have to type the whole silly line again! I mean, we are talking Dark Ages Computing here! Where are the punch cards? Where's the spinning magtape reels? Where's the blinky blinky lights? Where's Robby the Robot? IBM 360's?

I went to college with that sort of rot and am thrilled to not have to go back.

Lordee, copying a *group of folders* anywhere is an exercise in agony. I can do it now with about 30 minutes, a sophisticated text editor with macro commands, redirection, and smoke and mirrors. On the ST, of course, you just shift-click and drag them. And don't tell me about XCOPY; it does *not* "verify" the copy, even though it has a flag that says it does. I proved it didn't the hard way, and spent a day finding out what files it had screwed up.

I am saying the emperor has no clothes!

Windows

So they proudly start up "Windows." Wooooo. And then they expect me to be excited about it, probably because it filled the screen all with the same color without crashing. Me, I've been running something far better since 1985, and I am *not* excited. Windows to me looks like a "marketing department" version of GEM, i.e., bad.

Small's Law #8: No good computer program has *ever* come from Marketing; rather, it was sneaked by it. Ask *anyone* who worked at before-Tramiel Atari, for instance. Check out VCS Pacman.

Small's Law #7: In truth, all great programs are works of love, usually by a team of 2 or fewer programmers.

Windows has that great clunky feel you get when you're walking on mud; it's building up on your boots, and your feet weigh 20 pounds each. To do anything takes *forever*; you have to wade through menus just to copy files. Worst of all, it isn't snappy or fast in "feel," and that is important; it is basic Marketing 101 for a computer to "feel" blazing fast. In my heart, I have this dream of recoding parts of Windows in pure assembler ... I have seen Microsoft code and fixed it many times on the Mac.

[Darek Mihocka, as an aside: You're good at assembler, yes? *Please* help out the 3 million people with Windows and optimize it. GEMulator is an interesting concept, but they need help bad before they die of old age.]

Hard Disks

Ask the salesman about a hard disk. Is it SCSI, nice and straightforward? Nope. IDE or ST-506. Hey, great (mutter). Can I put a new one in that's bigger? Can I put more than two in? They don't know, and I don't know, either—*can* you put more than two hard disks into a PC computer? (I think the interrupts would conflict if you had more than one hard disk driver card—if you know, *please* tell me; my addresses are at the end of the article). Compare that to your ST, where only a few "drives from hell" can't be swapped with a few minutes and a screwdriver and ICD's formatting software, and where I can run, let's see, my present 6-drive setup to develop SST and the next version of Spectre, all requiring pretty massive software development and testing areas. Backup is an utter nightmare.

And PC hard disks are so much *fun*! (and profitable!) My pal Alex Pournelle spends his days getting data off dead hard disks; he can point straight to the IC that burns up most often on the Seagate drives. (Stiction; stepper motor driver IC.)

Data Recovery

I spent three nights, 9 pm to 3 am, a few months ago recovering critical medical software and data from my doctor brother's clone hard disk. It was an awful job. Apparently, the stupid HD controller stores how many tracks and so forth that the hard disk has *somewhere I could not find* (and *I tried*), and simply would not let me access the hard disk past a certain point (naturally, where I needed it to.) Yes, I know about AT CMOS Static RAMs, the software workarounds, and they failed: clone incompatibility. It was an XT clone anyway.

To me, this summarizes the PC Approach: We Know Better Than You What You Need. The controller wouldn't let me get to the data because it

"knew better," and I could not override it. I usually shoot hard disks with this attitude. (See: previous articles. I've got 'em with both an AK and an M-16.)

You know what I had to do to solve it? I had to *start a format*, let it run 20 tracks or so, and kill power, to rewrite the drive tables, and let me access the raw data; then I had to go low-level and copy the files, that were (thank heavens) on contiguous sectors, to another drive, then to floppy, using Norton Utilities set on "Mr. Spock Expert Level—you take all responsibility" and finally delete the trailing "trash" in the last sectors. This was tracing FAT map stuff and not fun; that's why it took so long. But I got it all back.

Starting a format and killing power is enough to freeze the blood of anyone who knows hard disks, but that's all that was left in my bag of tricks; I had tried *everything*, switching cables and LUN's on the fly after formatting another drive to "spoof" the controller, programs to override the drive controller parameters; you name it. Stubborn stupid machine!

Supra's *SUPEDIT* could have fixed this in minutes on an ST. I consider it mandatory for any hard disk user. It is on my Computer Show Survival Kit Disk and is the most-used utility I own. *Strongly, highly recommended!*

The Big Picture

Let's say you'd like a big screen for that PC. Okay, go get one. Now get a card to drive it. This is a whole science dealing with scan rates—can your monitor handle the card without interlacing, which will give you "flicker mode" and make you blind, as they say, without even having fun? Fine, fine. Usually, the salesman has a listing of cards that work with the monitor, printed up in words of not more than two syllables. Folks, if the card is not on that list, get a written guarentee you can return it; believe me. Oh, please believe me! (Also read Dave Troy's comments on monitors; he knows his stuff!)

Now, alas, go try to find a software driver for the programs *you use* that will make the monitor work. *What?* They don't work out of the box? Har, har. Chuckle, chuckle. I am to laugh. (Chuck Jones). Usually they'll include drivers for a few popular programs, such as *Lotus* and *AutoCAD*, and *that is it. End of story.*

Why? "Who else needs a big-screen monitor?" they say.

The particular word processor I use on PC's wasn't on the list, so I just kissed it off—the computer, I mean. Look, this is a *personal computer* and it is damned well supposed to *come to me*, not the other way around.

I feel like I've been patted on the head and sent on the way. The PC People Know What I Want Better Than I Do. (Of course, my money is still in my pocket). I can just see it: ("Hey, Willie—that bozo in jeans and T-shirt wanted a *word processor* on a big monitor! Haw haw haw! Let's go have a beer and pinch waitresses at the Silver Dollar after work! Maybe we can get in a fight! Throw me a Marlboro, will ya?")

On the ST (and Mac), programs written properly work right off on the big screens, and are usually updated when they don't. See, on the ST/TT, the ability to use a bigger monitor is built into GEM, into your ROMs. (No quibbling, please, you know what I mean; the VDI concept.) So every program can use it if the programmer isn't lazy. On the IBM, there's almost nothing in the ROMs, so everyone does it their own incompatible way—no standards.

I dare you to find a printer for the PC that does what you want, particularly a laser printer, unless the program you're buying specifically mentions *that* printer, model #, ROM revision #, and so forth *by name* on the back cover. Otherwise, you're in for the hilarity of "printer games," which every magazine runs one "help" column on, each month, in the PC mag world. And I dare you to find another program that uses that printer.

People sort of huddle, in ragged, torn clothes, near a cave entrance and a fire, around the Epson Standard for printers, even in the 1990's, chewing on raw meat and saying "Ugh, MX-80." It fills me with absolute dread to think of using PostScript on a PC clone with a PostScript Clone printer and some dweeb salesperson as tech support. I think I would rather have a stake hammered through my heart. I've used it on its home ground, the Mac, and it's hard enough. (Sandy can usually make it work—but we had to buy the laser printer its own 20 meg hard disk! Can you believe *that*? Next I suppose my keyboard will need a hard disk.)

The lack of standards for the PC market has led to absolute anarchy. Oh, if you stay within the bounds of a few programs, and their fiefdom's compatibility, you do okay, and that's what happens. Corporations settle on The Word Processor That Everyone Will Use. (Usually it is the one that all the secretaries hate, by Murphy's Law.) Networks are the same way; they only work with *some* software, not all. It is *very much* like Midevil England; you can choose to work under the protection of a Lord or Baron, and pay out the nose, or you could try to go it alone, and often fail. So you stay in the AutoCAD kingdom or the Lotus barony and *never ever ever* stray.

It is an exercise is raw fear to install a "TSR" (an AUTO folder program) on an IBM; there are so many that conflict so wonderfully. *Sidekick* seems to be the worst offender, though I may be out of date on that; I let my PC knowledge slide.

It is a fact that most PC's run two or three programs their whole lives. Whether or not they deserve it doesn't answer the question of whether or not this is slavery. ST's do not share this.

In the ST market, we have *some* standards. Not enough in some ways; GEM isn't complete and isn't debugged fully, but, well, it gets us by. It's sorta like Star Trek: The New Generation. (I expect that will start some fights). But not too many, either, such as the Mac, thank heavens. And the machine is incredibly inexpensive, pretty easy to use, and it gets the job done without all the rattza-frattza friggle snatz swear words of doing it on the IBM. If you want to sample one day with an IBM, set up an ASSIGN.SYS file—and make it work. IBM people do that all day.

Macs

Finally, we come to the Mac market. There we have perceived reality, which is this sorta fascist "Everything

Not Mandatory Is Forbidden" approach of the Inside Macintosh programming documentation. They honestly believe they know the True Way and that it is a Good Thing to force everyone to do things that way.

The reality is the memory management is so confusing that the very best programmers screw up pointers and step on location 0 all the time. I know, I have to fix their code. Apple, in my mind, went *way* too far in specifying standards, and were totally inconsistent in places. For instance, they babble about secrets of their memory pointers, then warn you strictly *not to use* that information! (Now we have piles of software that break on 32-bit System 7 because people used that information). But how to write a simple frickin' printer driver is a Great Secret that only a couple companies have figured out! (I would have had 300 x 300 dpi printing on the SLM years ago in Spectre if not for this).

It is now freely said that it will take you one year to learn enough to program a Mac. That chills me. *That is too long when programmers cost $50,000* / year. One reason? Mac's documentation is missing that one vital, vital thing: A Working Example. You know they can't even be bothered to give assembly language examples of a simple program or two? Mark Russell Benioff (remember him?) did a few for them, then they cancelled the project.

It's a macho oriented thing. Either you have The Right Stuff to hang in there and learn in-spite-of, or you don't. I don't.

Did you know that if you order their SCSI developer's kit, they'll send you source code software that is a quote non-working unquote SCSI driver? Wow, how useful!

In the Mac world, you never stoop to using mere numbers. You use "equates," which are set to the right numbers at assembly time. *They do not give you the real numbers*. This makes actually writing code from the manuals damned near impossible, unless you buy aftermarket books that list out the numbers, and makes looking at crash-dumps absolute hell. (I have bought every aftermarket book.) Apple also has this completely insane habit of using negative numbers (you know, "error -5561")—oh, *come on!* Must we all get out our pocket calculators, do two's comp to convert it to postive hexadecimal, and find out what the heck it is in hex for use in a printout? I bet they have quick-draw contests in the Apple corridors for who can convert a minus number to hex the fastest.

Grow up, people. I call that macho programming for the sake of being macho, and it's stupid.

Finally, I hate to tell you this, but because of the proliferation of standards, some of which conflict, it is getting harder and harder to write A Mac Program that will work across all the machines. I used to understand the theory. Now I don't. I'm sorry, but it is true. *MultiFinder* added stuff, 32-bit color added stuff, Slot Manager Time Manager Power Manager ... the amount of sheer trivia you need to have in your head to program a Mac would stun the developers of the atom bomb.

I know, and ST developers who are trying to learn Mac know.

Because of the standards, Mac programs tend to be able to talk to each other more than PC or ST programs. But because the standards were not always drawn up sanely (I think "idealistic" is a descriptive word), they are not always that good, or even used ... Greyview vs. PICT-2 for instance. There's now about a zillion picture formats for the Mac, and they wouldn't be there if the standards had been done right. But Mac's corporate culture will not allow that. Idealism over Practicality *always*.

Looking back at this same company's history, though, you can see where it fits into the corporate philosophy. Remember the Apple III? The Lisa? The original Mac with no SCSI? Unh-hunh. They honestly were True Believers, and could not understand why the stupid people of the world wouldn't hand over their money for those machines. The Apple II saved them through those goofs. The Mac Plus had SCSI hurriedly grafted onto it and the ability to have 4 megs of memory, and when the LaserWriter and PageMaker came out, the survival of Apple happened—not by some plan. (But then, the Apple II made it big only because of *VisiCalc*).

Go wander through a MacWorld show sometime (although pretty much the Suits have taken it over), and you'll see people who are interchangeable with Moonies in glazed looks. True believers. Scary.

This is the company that brought out the Classic Mac for a lower cost, sold zillions, and couldn't make enough profit to support their completely absolutely ridiculous overhead, so they laid off many people. I keep hoping every one of them was from Marketing and Corporate Vision.

As for Mac dealers, they are even funnier, and less informed, then PC Clone dealers! I know, it seems impossible, but it's true. Sandy and I have managed to intimidate the staff of one shop by bringing in a Stacy and booting it up into Mac mode (before the Mac laptop), then doing the casual twin Mac IIFX mention. Otherwise, wear a good suit, and watch them try to sell you overpriced, sometimes not very reliable hardware (a la the Quantum drive fiasco of a few years back), and software that doesn't do what the packaging says (a la the "32 bit clean" fiasco, where Connectix saved them from lawsuits; Apple was doing what it warned everyone else not to do, namely writing 24-bit code that broke in 32-bit mode...)

Tip: If you really want a hot Mac, buy the sleaziest used Mac II you can find, and get the IIFX board-swap upgrade; you'll have something hot and new for about $3,000.

The Quadra? Very Loud reports of incompatibility, and, look, let's be honest, where is the speed?!? When I read a benchmark that says the Quadras are 30% faster than the FX, it blows my mind. They should be FAR far far far faster with a 68040 in them than a mere 40 MHz FX. Something is horridly wrong.

Programming & Using

So people talk about giving up on their ST's and going PC or Mac.

It takes a long time to learn to program the PC, since there is total anarchy and you have to go from fiefdom to

fiefdom, making your code compatible. Gosh, does it work on the Targa Super-VGA non-interlace video controller with an AMI 2.1 BIOS on a 486DX processor with 256 cache RAM and static-column memory? Test all the combinations and you'll spend the rest of your life. You see what I mean. I go to lunch with a guy writing PC games who endures this hell weekly; he wrote "Empire." It takes you a year to learn the Mac, if you can grit your teeth and stand the political indoctrination ("It is *good* to use a segment loader and never know where on earth your code resides, and have it moved under you.") I have never been able to do that violence to myself, so I stay at the periphery of mac programming, thank heavens. Believe it or not, I have written only very short mac programs and only for testing; I don't want people shouting "unclean! Unclean!" at me as I wander through villages.

It takes about a month on the ST, especially if you get Clay Walnum's books and a good assembler or compiler. You can have working examples that you understand in a few days. Atari really blew it in the early days, not documenting Gem well, not helping and seeding developers, but outsiders have done a good job, and these are good days to learn the ST. This may work for us. Atari needs a corporate evangelist very very badly. Bill Rehbock is trying, as is Bob Brodie.

And that is why it is worth it to stick around Atari Land. You can program the machines in a decent amount of time and have fun with them. They are very usable, and Atari did not make the extremist mistakes of total anarchy, or total control, that their competitors made.

PC: I don't want to go to a car dealer and be told I can have one of many faceless, nameless clones, and that's it, pal, and each one runs on different gasoline; you can only fill them up with one brand of gas, if you can find the right dealer. Every brand of gas (software) is different. If you change brands of gas, you must change the carb, engine, and catalytic converter.

Mac: I don't want to go to a car dealer and be told that each tire will cost me $500 when I know those tires cost $75 anywhere else. I don't want to go to a car dealer and be told that I have to learn to drive with a trackball instead of a car wheel, right-foot clutch, left-foot accelerator, and a periscope instead of a windshield, because That Is The One True Way, and to mortgage Jamers to buy a new computer because they senselessly cost so much. And I don't want to Beta Test their idiot new operating systems that always take three revisions to get right.

I just want a comfortable car that gets me where I want to go, and which I can program if I feel like having fun. Remember "fun" in programming? The ST has it in many different languages. I hear people even have fun in "C," although that sounds so unlikely that I must only call it rumour. I like BASIC and assembler.

And the ST is my comfortable car. It is *so* far ahead of both the PC and Mac, in different ways, even all these years later, that I'm happy. If you own an ST, you've done well.

Crystal Ball

The PC is going to continue to fragment until we'll have "PC-AutoCAD" magazine, "PC-Lotus" magazine, and whatnot (this is already happening); the Mac people are gradually losing control of their standards, as $B22 (hardware configuration flags) is replaced by SysEnvirons is replaced by Gestalt. I wonder what's next. I am reminded of the government ... remember when OSHA made "backup beepers" mandatory for bulldozers, and the EPA promptly ruled them illegal for noise pollution? Apple urgently needs a few (it's important that it be *just* a few) managers to pull the plug on many projects that are just damned makework, or will not show results before 2,200 A.D.

Sure, the ST could be better. But it could be *so much worse.* Go tour some computer stores and see. The bickering over various minor flaws in the ST is *so trivial* compared to the wholesale screwups in other computers that it's almost touching ... likecoming home to the minor bickering of kids in the house vs. a vicious political fight at the office.

Personally, I made my SST into a rocket, into the world's fastest ST, since I like speed and performance and I do things where that matters. I also made mine Mac compatible because I was bored sitting around the house retired after my 30th birthday. And there are other people working at making it better, and slowly learning how to survive economically while doing so. The CodeHeads come to mind.

And of course, remember, you can experience The Joy of the Mac or PC worlds anytime you want with an emulator. That ought to be enough to keep you around the ST for a long time.

In conclusion, yes, it is very hard to "keep the faith" without those weekly injections of faith, and with weekly injections of despair and hopelessness from some sources (alas). Yet you really do have a fine computer there. You're in a relatively small "pond" compared to the PC or Mac markets, but that isn't so bad; if you write something good, *you will be known* for it, instead of being the 27th inventor of what you did! The ST community is small-town comfortable and I like it; at MacWorld and Comdex, all I can see are the Suits, trying to slice 20% off me for their distribution outfit for very little work. It just isn't worth it to me.

You can now get Ataris with extremely high speeds, very competitive with anything Mac or PC. You can get them with fine graphics cards that have some chance of working with your software, without requiring special driver programs. Atari itself is talking about units with greatly increased sound and graphics capability, and that is true. The operating system has been greatly improved to multitask. And you can get PC or Mac emulators if you need them.

Just what is it that you really *are* missing from that big PC warehouse? The chance of a lifetime to have interrupt jumper conflicts? The fun of finding out that once you configure your machine to act remotely like an ST, you've used up most of its expansion capability? The cost of the monitor? The hype?

I don't think you're missing a thing, and we own ST, PC, Mac, Unix,

and other computers. Particularly in terms of what normal people can afford in this dreadful economy, the ST is the best you can do ... but it would be the best you could do if you could pick anything.

Letters to the Editor

Let's see. Last couple months I wrote about "Heresy," and said some things that make people uncomfortable about structured programming, "C," and so forth. This is very nearly a religious issue, so I was expecting the usual burn-at-the-stake response. But I wanted to make people whose minds weren't firmly rusted shut *think* about what they had been taught.

To my surprise, there was only one "burn" letter, and *many* people writing to say, "Thanks for finally saying it in public—that stuff stinks!" (to quote one). Interesting ...

The one letter I did get (CN, Apr. 92) missed my point completely, which casts some bad light on me; as a writer, *I did not get my point across* (and heck, I even made it a Small's Rule to be sure!) The man who was kind enough to take the time to write said that I was advocating spaghetti code over structured programming.

I plead not guilty. I said that any sane programmer adopts structure, whatever the language; I also said that you can write crap in any language. What I also said, though, is that you don't *have* to do it in the conformist methods of structuring; that it is not necessary to break programs down into tiny incomprehensible elements, and so forth. Alas, the writer missed that (which may be my fault) and I got Lecture #23 on why structured programming is better than spaghetti code ... which I already knew. Well, I blew that one. (I would think it would be obvious that Spectre would have killed me with sheer weight without structure of some sort. I just find classic Structuring 101 ... DO loops, yuck ... to be totally intrusive.)

I do kinda object to the writer telling me I haven't "made the commitment to develop the disciplines required to improve their productivity and the quality of their code," when the writer has not seen the code! That smacks of elitism. Spectre is currently about 25,000 lines of code, add another 10,000 that have obsoleted over the years. The Mac emulator was up in three months, as documented on GEnie. I think my productivity is adequate, and I seriously doubt I could get any more out of me without hooking that hard disk to my keyboard (hmmmmmmm!) and doing a Diet Pepsi WipeOut. Spectre is structured in a way that makes sense to *me*, who is the guy programming it, after all; just because it's a different form of structure that works for me does not mean it is no structure. Have some tolerance, okay? I took all the "classic structure" classes while getting my (sigh) CompSci degree and it was like coding in hell; it got in my way, slowed me down, and documentably slowed the computer down.

To me, "discipline" and "quality" is taking Spectre 3.0 through 18 Beta versions, scanning for bugs over and over, and getting it darn near perfect. Spectre 3.0 runs more Mac Plus software than a Mac II, and GCR can read more off-tolerance Mac disks than a Mac II. What more do you want? Sandy and I use a GCR all the time to read out of whack Mac disks and copy them to an aligned disk.

Looking back, I've been at this Mac emulator stuff nearly 8 years ... I'm probably the only Atari developer except Beckemeyer *still here* since '85. I guess it's that lack of commitment (that is sarcasm).

Let me try again:

It takes all kinds. Different strokes for different folks. It is okay to be different if it works for you. "C" is not mandatory, and while I consider it brain-dead, the "classic" structure taught today works, apparently, for some people. The important thing is using what works for you, and creating, rather than wasting time following rules that may not apply to you.

I strongly feel that what structuring works for you is related to personality typing. For instance, I strongly profile as a "writer," and my structuring reflects that. Spectre reads like a book, and is an experimental structuring technique.

"Discipline and commitment" is *not* writing source code in a manner today considered trendy and chic; that is just conformism. As in, here today, gone tomorrow ... My article was meant to reflect my weariness with people intolerant enough to say that because you are not structuring Their Way, according to what they read in some book, You Are Evil, not as productive, disciplined, or committed. Yuck.

The thing that makes me the most uncomfortable, though, is how much I failed to get across in that article; of course, it could be that by the fourth paragraph, a red haze was obscuring the reader's vision.

Dave Troy's reply was sane, well written, and I wish I lived closer so I could get to know him better. He and Jennifer are among the finest people I know. I couldn't wish them more luck.

Another letter in the same issue nailed me fair and square on how programmers tend to look and dress alike. The writer pointed out that programmers often simply do not care how they dress, because their minds are focused on their program. Many artists and mathematicians share this characteristic when focused. As I look at myself now, dressed in a tacky "Gary Hart for President '84" T-shirt and scuffed pants and bare feet, he is absolutely right. I usually wear the bare essentials not to get arrested.

What I was trying for was a lead-in to the conformism of "C" and *one* method of structured programming, but it didn't work that well. (Maybe if I'd used structured writing? Grin!)

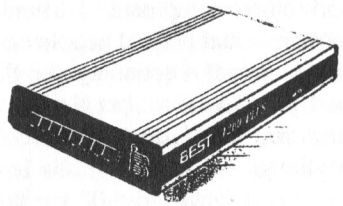
Finally, all of us at the Small family wish to extend our condolences to Frank Sommers and family.

* * *

Addresses:

Phone: (303) 791-6098
(Too busy. Forget it.)
FAX: (303) 791-0253
Compuserve: 76606,666
GEnie: DAVESMALL
Internet/USENET:
dsmall@well.sf.ca.us
Wife: "Did you do the dishes yet?"

Unconventional Use of Your Modem



(c) 1992 By Ralph C. Turner

When we use a modem, we normally have it call up another computer. Sometimes the remote system is a personal computer; sometimes it's a mainframe commercial information service like GEnie or CompuServe.

However, in the last few months I've started to use my modem for a different purpose. Let me explain how this came about.

About a year ago I invested $2,000 in a mutual fund. In order to find out how much my account has gained or lost, I dial the company's 800 telephone number.

A problem arose, though. So many investors were dialing the company's number that I'd get a busy signal every time I'd dial. After about 20 or 30 attempts, I'd finally get through. Although my phone has a re-dial feature, it was still annoying. I had to continuously keep the handset next to my ear, and after hearing each busy signal, I had to press the re-dial button. The process required just enough of my attention to prevent me from engaging in any other activity.

Then I had an idea. How about having my telecommunications program dial the number for me? After all, the program has its own re-dial feature. Sure enough, it worked.

Although my telecomm program of choice is *FLASH*, I could have as easily used *Interlink*, or any other program that allows for automatic re-dialing of a busy number.

With *FLASH*, I set the number of re-dials to 30, then entered the mutual fund's 800 number into the program's dialer. After making sure my modem's speaker was turned on, I instructed *FLASH* to dial the number.

The number was dialed, a busy signal was gotten, then the number was re-dialed again. This was repeated about 20 times, until I eventually heard the phone being picked up at the other end. At this point, I picked up my phone's handset, then instructed *FLASH* to disconnect from the line. (This is done by typing "ATH," then hitting the [Return] key. "AT" is the "attention" command for the modem, while "H" is the "hang up" command.)

Here's why I picked up my handset: if my tel-com program doesn't detect a carrier from a remote computer, the program will eventually hang up the line. Since the mutual fund system doesn't expect a computer to be calling it, it doesn't send out a carrier.

So far, so good. But there's more to the story.

It turns out that my mutual fund company has a voice mail system connected to its phone. Once their system answers my call, I hear a recorded voice that says, "Hello, this is XYZ company. If you are calling from a touch tone phone, please press 1 and the pound key."

Here's how I used to deal with this when I was using my phone's handset (i.e., before I started using *FLASH* to help out with the dialing).

When the remote voice mail system told me to press 1 and the pound key, I had to move a little button on my phone's handset, since my phone service (from the local telephone company) is pulse service, not tone service. (Pulse service is cheaper.) Once I'd switched my handset to tone, I pressed 1 and the pound key, and my phone emitted a couple of different tones. After receiving the tones, the remote voice mail system then offered me 5 or 6 new options. For instance, by pressing 2 and the pound key, I could speak to a real person. Instead, I pressed 3 and the pound key, which routed me to an area of their system where I could find out the current values of specific funds.

It gets pretty complicated, though. To learn about a specific fund, I have to punch in a two-digit number, followed by the pound key. Then, in order to receive information about my specific account, I need to send an eleven digit number.

After fumbling around with all these numbers for a few days, (using my phone's handset) it dawned on me that *FLASH* could possibly be helpful.

Using Function Key Strings

FLASH (as well as many other telecomm programs) allows you to assign different text strings to the various function keys. For instance, I have assigned the string "ATDP 1 800-555-1212;|" to *FLASH's* F17 function key. As a result, whenever I want to dial my mutual fund company from within *FLASH*, all I do is hold down the shift key and press the F7 function key.

The "AT" is the "attention" command for my modem, the "D" is the dial command, and the "P" tells the modem that I want pulse dialing. The number "1 800-555-1212" is then dialed. The semicolon tells my modem to return to the command state after dialing. (My Supra modem, being Hayes-compatible, has two states: command and on-line.) The "|" tells *FLASH* to send a carriage return to the modem.

```
F1:ATDT 1#;|_____                FUNCTION KEY
F2:ATDT 2#;|_____                  EDITOR
F3:ATDT 3#;|_____
F4:ATDT 4#;|_____
F5:ATDT 35267992131_____        [ LOAD ]
F6:ATH_____
F7:_____                        [ SAVE ]
F8:_____
F9:_____
F10:_____
F11:ATDT 21#;|_____             [  OK  ]
F12:ATDT 22#;|_____
F13:ATDT 23#;|_____             [CANCEL]
F14:_____
F15:_____
F16:_____
F17:ATDP 1 800 5551212;|____
```

But there's more. I've linked additional strings to other function keys. For instance, I've assigned "ATDT 1#;|" to the F1 function key. Once I've dialed the telephone number (and it's been picked up at the other end, and I hear the words, "If you are calling from a touch tone phone, press 1 and the pound key") I press the F1 function key.

Note that this time, I send a "T" instead of a "P" as part of the dialing command ("ATDT"), since the remote voice mail system can only act on tone signals. The fact that my local phone service is pulse doesn't prevent me from sending out tone signals, as long as I've originally dialed the main telephone number using pulse signals.

After pressing the F1 function key, the remote system says, "For closing prices, press 3 and the pound key." I do this by pressing the F3 function key, and "ATDT 3#;|" is sent to the modem. I then hear, "To obtain the price for a specific fund, press the 2-digit code for that fund, and the pound key." I then hold down the shift key and press the F1 function key. "ATDT 21#;|" is sent to the modem.

When I want to hang up, I press the F6 function key, then hit [Return]. This sends "ATH" to my modem, which hangs up the line.

If you've ever been frustrated by repeated busy signals, or you've been annoyed by having to punch in complicated sequences of tones, maybe you should turn to your modem. In addition to possibly making the task easier, you may learn something about how your modem operates.

[Ralph C. Turner is the author of three ST books: ST Topics, ST Subjects, and the Atari ST Book, all published by Index Legalis, P.O. Box 1822-16, Fairfield, IA 52556; (515) 472-2293. This column is copyrighted 1992 by Ralph C. Turner.]

■■■■■■■

Writing an Accessory Program

Doing It the Hard Way

by Marion D. Kitchens

Introduction

Santa brought a shiny new Packard Bell printer and left it under the Christmas tree at this house. One of those things that no one could ever justify owning as a hobby user. But boy-o-boy is it nice!!! Yes sir, really nice. Does a super job of printing.

Of course, it does that super job only if you have Packard Bell laser printer drivers for your software. That was no problem for *PageStream* because the Packard Bell machine has built in HP LaserJet emulation, and the HP driver is on the PageStream disk. (The Packard Bell laser also comes with IBM 24-pin dot matrix emulation.) Like in most places, I suspect, the computer here gets used mostly for word processing. Namely used with *WordWriter II.* The computer and printer are used for a number of other applications as well, but for the purposes of this article, let's worry about *WordWriter II.*

The Problem

WordWriter turned out to be a problem that needed to be addressed. The default printing of the HP emulation simply was not compatible with the page layout of *WordWriter.* Sure, you can change the page layout on *WordWriter* each time you print a document, but who wants to do that? After all, a well set up computer system is supposed to make life easier, not more troublesome. The first, and easiest, solution to this problem was solved with a stand alone program run from the *HotWire* menu. By running that program, selection between *WordWriter, VIP* landscape, and HP default setups for the laser could be selected. That still left one minor, but annoying, problem. The brainy wizard operating my ST could never remember to run the stand alone program before getting deep into *WordWriter.* That meant (1) saving the document, (2) quitting *WordWriter,* (3) running the stand alone program, (4) re-booting *WordWriter,* (5) re-loading the document, and, finally, (6) printing. Yes, I know you can print from the disk, but it's never done here for some brainy reason.

The Solution

The solution was obvious. Write an accessory that could be pulled down and run without leaving *WordWriter.* Have you ever tried to write an accessory without the necessary information or knowledge? Ever wiped out a full hard disk partition crammed with 10 MB of hard-earned data? Ever spent hours and hours and hours just trying things until something worked, and then staggered through several days at the office half asleep? I have! Finally, after all is said and done, the accessory is now letting me set the printer up as I want it. I can select page layouts for *WordWriter, VIP* landscape printing (large or small fonts), and the HP default settings. Let me tell you what I learned about writing accessories for the Atari ST.

Lessons Learned

1. Get all the information you can. First, find someone that knows a little about writing accessories. It can save you many miserable hours of fruitless work. Second, find what written information you can about the subject and read it thoroughly. I found very little, but surely such material exists. The only information I found, however, happened to be in the *GFA Basic Compiler* documentation. Right where you would expect to find such information, right? Yes, I wrote the accessory in *GFA Basic* and compiled it.

2. One thing you should never do in an accessory is have an END statement. That caused very unhappy problems on my hard drive.

3. The accessory must identify itself as a GEM accessory to the ST, and then announce its presence to the operating system.

4. After identifying itself and announcing its presence to the ST operating system, the accessory must go into an endless loop. End up in an endless loop? Yup, that's right! Hey, don't ask me how this works! I just learned the hard way what does work and what doesn't.

5. Stay away from the CLS command in your accessory program. The CLS command can (usually will) cause the Menu Bar to disappear from the screen and leave you stranded. The Menu Bar will still function (the drop down menus will appear and you can select items), but you have to remember what the main menu items are at the top of the screen because they won't be visible. Your accessory program must find other means to get unwanted information off the screen.

A Simple Example

Let's walk through a simple example. The accessory listing below, in GFA Basic, simply prints mes-

```
'              ===== Sample Accessory Program =====
'                      24 January 1992
'
' ** This is an Accessory Program and Must be Compiled to Run **
'
$m1000                ! Reserves 1000 bytes for the accessory
ap_id&=APPL_INIT()     ! Gets an Application ID number
IF ap_id&             ! If ap_id& is zero, Program was not '
                        started as an application
  VSYNC               ! Wait for vertical sync.
  me_id&=MENU_REGISTER(ap_id&,"Accesry Name"  ! See Text for
  DO                                          ! discussion of
    ~EVNT_MESSAG(0)                            ! these lines
    IF MENU(1)=40                              ! of code.
      ALERT 0,"Which Message?",0,"MSG 1|MSG 2",x%
      IF x% = 1
        PRINT AT(10,10);"This is Message One"
      ELSE IF x%=2
        PRINT AT(10,10);"This is Message Two"
      ENDIF
      PAUSE 100
    ENDIF
  LOOP
ENDIF
```

sages on the screen. It is an adaptation of a simple accessory found on a disk, author unknown.

Note that the program first declares itself to be a GEM application. That is done with the APPL–INT() function, which returns an application number called *ap_id&* in the listing above. Next the MENU–REGISTER function is used to pass along the name of the accessory (the name that appears under the DESK drop down menu), and retrieves an accessory number called *me_id&* above. Once this is done, the program enters the endless DO-LOOP.

Once in the loop, the EVNT–MESSAG(0) is checked to see if an even has occurred. If it has and the resulting MENU(1) is equal to 40, it means you have selected the accessory. The program then enters that part of the program where you want action performed. In this example, an ALERT box lets you select one of two messages to be printed to the screen. The PAUSE 100 lets you read the message before returning to whatever was on the screen before running the accessory.

One reason you can get into trouble with programming accessories is that they can't be run until they are compiled. They won't run in Basic. In other words, you can't check them out until you actually try to use them. Some not-so-funny things can happen if you have made a programming error! You have one option at this point, and that is to compile the program and try it. Note that you will have to change the resulting compiled program extension to .ACC before it will load automatically at boot-up of the computer.

Warning

Your author is not an expert at programming accessories. There are probably many things about it that he doesn't know. There are others much more experienced in writing accessories, and you should seek them out if possible. You can get into trouble like I did when I lost 10 MB of data on my hard drive! But it can be enjoyable-just don't do anything stupid!

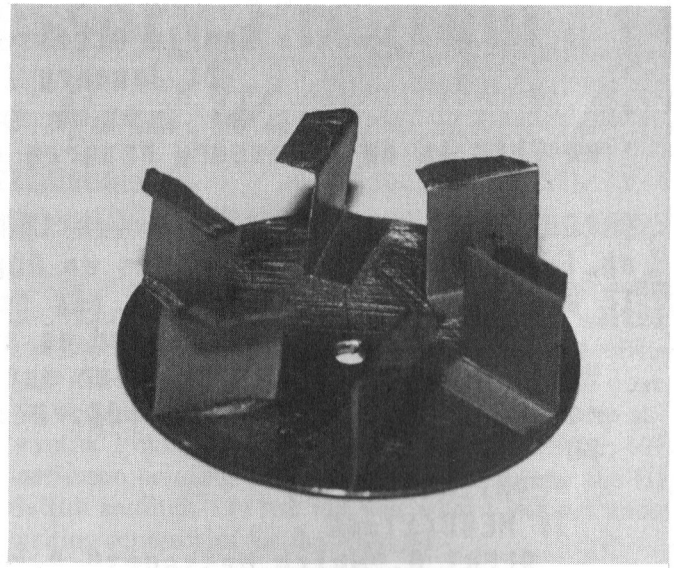
Concluding Remarks

This article was written to encourage others to enjoy the fun of programming, and to help first time accessory programmers avoid some of the misfortunes I encountered. Maybe the article will result in all those talented programmers out there flooding the ST world with information on writing better accessories. 'T-would be nice to see that happen!

Good luck in tickling the magic keys. Hope you are enjoying the digital arts!

Atari 1050
Build Your Own Disk Drive
Cooling Fan

by Lee Barnes



The Problem

When I first got my 8-bit system set up, my 1050 drive worked perfectly. But, as my software library grew, and as I started to move large text files from one diskette to another, my 1050 started to "go south" on me once in a while. It acted as if it were lost. It couldn't find the right sector to work on. It would hunt around for a long time and finally an error code would pop up on the screen.

Diagnosis

This only happened when the drive had been on and in use for some time. The diskette inside the drive would be warm to the touch. Checking the drive itself, I found the bottom, of all places, to be very warm. After setting the drive outside on the woodpile for 10 minutes or so, it would work perfectly again. Checking the RPM of the drive, I found that when it was very cold it turned at 290 RPM. At room temperature it spun at 288 RPM. But, when it was messing up, it spun at 285 RPM or even less. I'm not really sure, as I have only one drive and I had to use it to load the RPM tester. If it was messing up, then I couldn't have loaded the RPM tester. A definite trend was indicated.

Going inside the case of the 1050, I found a metal shield over some high pin count chips. Removing the shield, I found the chips almost painfully hot to the touch. Knowing that only very expensive chips are designed to run at such a high temperature, I realized that my 1050 needed a fan in order to operate for extended periods of time.

Evaluating the Options

A 12-volt muffin fan would work, but they are expensive, and where would I mount it? I finally came up with the idea of mounting a homemade fan on the drive motor. My first attempt was a fan made from an aluminum pop can. The metal was too thin and would sometimes rub the drive belt, making an awful noise. But it worked!! It made enough of a breeze inside the case that my drive worked just fine.

I also tested fans with diffusers on top, but my experience revealed that the fan kicks out a stronger flow of air without the diffuser. A diffuser is a washer looking like thing that would sit on top of the fan as I build it. It is supposed to help get more air thru the fan, but for some reason my tests say the opposite.

The occasional noise, created by the aluminum pop can rubbing against the drive belt drove me to redesign the fan out of stiffer material. An empty cat food can is stiffer and fit my needs well, so that is what I used.

[Editor's Note—The Obligatory Disclaimer. Keeping with time-honored tradition, I feel duty-bound to remind everyone that making this modification will clearly void most, if not all, warranties. I'm not sure who's warranting Atari 1050 Disk Drives these days, but nevertheless, be advised. Disassembling computer equipment is not for the faint at heart. If you make a mistake, you're on your own. But then again, we Atari 8-bitters are pretty much on our own, already. —RR]

Making the Fan Base

First, I needed to make an appropriate base to mount the fan to the drive pulley and to attach the fan blades. I found the center of the bottom of the cat food can by scribing arcs with a compass. Set the compass so that the arc scribed goes thru the approximate center. By scribing many such arcs, all from different locations around the rim of the can, the exact center can be found in the very center of the pattern of arcs. Dimple this center with an ice pick and then use the dimple to guide your compass in scribing a circle one and a half inches in diameter. Carefully, cut out this circle with a pair of hefty scissors. Then using the ice pick, enlarge the center dimple into a hole that will fit into the hole in the center of your 1050 drive motor pulley. I was lucky; my drive pulley had a good deep hole, and I found that by leaving the shrapnel-like shards on the sides of the ice picked hole, my fan base would snap on to the pulley as if the two were meant for each other.

Not all pulleys are made like this, as I found out, when I attempted to mount a fan on a friend's drive. His pulley had only a small countersink to guide me, so I filed off the shards and enlarged the hole to fit the countersink. Then I guesstimated the centers together

as the glue set up. We were fortunate to come up with a well- mounted and true running fan.

Making the Fan Blades

The fan blades were cut out of the sides of the cat food can. Cut off both the top and bottom rims, and lay the metal down flat on your workbench. Scribe a line close to one of the long sides of this material. Scribe another line one eighth (1/8") of an inch parallel to the first line. Scribe another line seven sixteenths (7/16") of an inch parallel to the second line, and then another line one eighth (1/8") of an inch from the third line. Cut the metal using the outside lines as a guide. Then scribe a whole series of lines perpendicular to the existing lines, all seven sixteenths (7/16") of an inch apart. Scribe as many as possible. Cut along all of these perpendicular lines to make a whole bunch of future blades. Using the scribe marks on each blade, grab the blade firmly with a good pair of pliers and bend the blade on the scribed marks, one eighth (1/8") of an inch from the ends of each blade. Bend each blade end, in different directions. You should wind up with a piece of metal seven sixteenths inch wide and seven sixteenths inch tall (7/16"), with one eighth (1/8") inch extensions on opposite ends, bent to look like the classic Egyptian hieroglyphic arms.

It doesn't matter how good you are, or how careful you are; you will not be able to cut and bend six blades exactly alike, which is why I make up to 18 blades at a time. Then I correct the bend in each one to 90 degrees and lay them down on a smooth surface, all side by side, and with the bends in the same direction. Push this row of blades with a ruler and you will see quickly how far off the whole bunch really is. At this point, I pull the larger, more grotesque blades out of the line up, until I have six blades that match as best as they will.

Scribe three lines thru the center of the fan base, all 120 degrees from each other, and you will have some guide lines with to help you glue the six blades onto the fan base. I line up the blade with the guide line at the outside edge of the fan base only, and then set the blade down with a twist to the right. This puts the blades at an angle to the three guide lines so as to throw the air out as fast as possible. The fan will turn counter-clockwise as you look down on your workbench at the fan. The exact offset is not very important as you can see even minor differences in the angles just by looking. When the glue has set up, carefully trim the blades' upper edges so that no part of the fan extends past one and one half inches in diameter. The balance of the fan is not very important either as the motor only turns at 2000-3000 RPM, and the materials used don't weigh much, or are placed at any distance from the center of the motor shaft.

Glue Choice

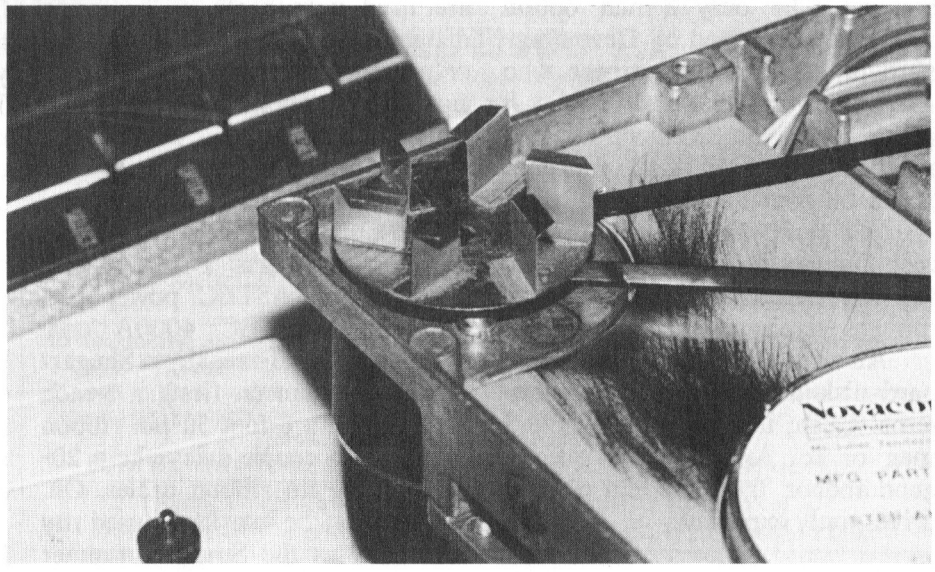
Epoxy should not be used to glue the blades to the fan base or the fan base to the drive pulley. Epoxy will crack and fail someday. I've never seen an epoxy that would not fail with time alone. Liquid Metal or even Super Glue is preferable to epoxy. I use Locktite's Thread Repair Compound. It is strong, fast, and lasts forever. You can find it in auto parts stores, and since it is a two part glue, it will never harden on the shelf.

Mounting

You will have to remove the metal shielding in your 1050 to use this fan, which brings up the question of interference. In my case, I can't find anything that my uncovered drive interferes with, but you should try your drive without the shielding before you glue on the fan. Your neighbor might just sick the FCC on you!

Conclusion

Since mounting the fan on my only drive, I am out of the fan making business. I have nothing with which to test the fit of a fan should I choose to build another now. I'm quite sure that a metal stamper could turn out thousands of these things at a run. But, this unemployed, part time hobbiest is not up to the task of paying for prototype stamping dies. If someone wants to go into 1050 fan production, have at it. I would appreciate a small piece of the profit (if there is any), on a shareware/honor basis. (Lee Barnes, Box 187, Wild Horse CO 80862. (719) 962-3354.)



Building a Hard Drive for the Atari XL/XE

by Jack Dewell, Jr.

A Little Bit of Mass Storage History

Atari Incorporated gave me my first Atari 8-bit computer when I went to work for them in 1980. I received an 800 with 48K of RAM, two 810 disk drives, an 850 interface, and an 825 printer. It was mine to use for a year, no charge. (First one's free, kid, after that you're on your own ... hah hah.) After the year was up, I could *keep* it as long as I had done something useful with it at Atari. So I did. I used it with *Data Perfect* to track repairs on 800s, 400s, 410s, 810s, 815s (!), 850s, 825s, 2600s, and 5200s. For those who don't eat, sleep, and breathe Atari, those were computers, peripherals, and game systems. I used *AtariWriter*, my first word processor, for reports and memos. And I got to keep the system!

After a year or so, I started considering mass storage for my Atari. 88K per floppy does *not* cut it, folks. 8-inch floppies and hard disks were the two available choices. Both were *huge* (half-height drives were not yet in the picture). The only 8-inch option was a card designed by Dave Sheppard, a very sharp engineer who may still work for Atari Games. It plugged into the SIO port, doubled up the I/O rate to 38.4k, and gave you a bit over a megabyte of storage per removable floppy. But, 8-inch floppies are very, very big and the drives are monsters which have monster-sized power appetites.

Also available at the time was a hard disk drive from Corvus Systems. Gosh, it gave you a whole 5 meg or so. And was not even a good anchor. Truly the Fiat of hard drives, only expensive.

Atari 8-bit Mass Storage Today

Nowadays, however, we 8-bit jockeys have much better choices available, including faster, higher capacity floppy drives, and hard disk interfaces that make it a whole lot easier to design your own hard disk system. I bought myself an ICD MIO Board a couple years ago, and after postponing it, like all projects, I finally put it to use. I built my own hard drive for my 800XL.

I hate to say this. A hard drive for your 8-bit is expensive (at least it is to a cheap so-and-so like me). The best retail pre-built price that I know of is $399 for a "5-meg removable or 10-meg fixed" hard drive, from Computer Software Services, formatted and ready to fly. Not having seen any ICD ads in a while, I don't know if they do 8-bit hard drives or not. [Editor's Note: I bought my 8-bit Hard Drive from ICD directly. It is a regular ST FaST Drive, complete with a disconnected ICD ST Host Adapter inside the case. —RR] Even buying parts and doing it yourself is going to run you around $400. *But*, if you are tired unto death of swapping disks, or running out of disk space, or searching for a particular disk (again) ..."*I know* it's here somewhere!" ... read on. It *is* worth it.

Getting Down to Business

To build my hard disk, I used the following parts: a steel case, a 5-volt/12-volt ASTEC power supply, an ADAPTEC 4000A controller card, a 10-megabyte Shugart 712 mechanism (at first), a 3-inch "quiet fan," a 6-foot 50-pin ribbon cable, and a couple daisy-chain 20-pin and 34-pin ribbon cables. Oh, yes, and for the interface I used my ICD MIO as the Small Computer System Interface (SCSI) from my 256K 800XL to the Adaptec 4000A controller.

I physically mounted the ASTEC power supply, the Shugart drive mechanism, the ADAPTEC controller card, the cooling fan, the AC On/Off switch, the Inline Fuse, and the drive activity LED on/in the case. I then cabled it all together. It was a piece of cake.

And pigs will fly. To dispel any misconceptions, though, the basic design is really quite easy. With few exceptions, the parts to do this project are quite standardized and off-the-shelf, and it's basically plug-and-play once you understand which part does what, and to whom. Really, the most strenuous part was making it all fit into that little case. (I did mention I'm a bit cheap sometimes, didn't I?)

As long as you know that the cabling sequence goes Computer to SCSI Adapter to Hard Drive Controller to Hard Drive Mechanism, and get the power connections right, you've got it licked. No problem ... well, except for setting the Drive Select jumper to 0 for your first (or only) mechanism, and setting the second mechanism to 1, if you have one, you lucky dog you. The really neat thing about this modular approach is that if you ever run out of space on your hard drive (!) you can just back it up, replace the drive mechanism (or "mech" to hardware hackers) with one with a higher capacity, format the new "mech," and restore your backed-up files onto the new drive, ending up with your original carefully-crafted directory/file structure and twice the space (or whatever boost you just had to go for).

Originally, I used a Shugart 712 10-megabyte hard drive mecha-

nism, and I *certainly* never ran out of room; but, well ... I had this Seagate ST225 20-megabyte hard drive which I had traded an unwanted Mac Quantum "mech" for (don't ask...), and I just couldn't see having a 10-meg drive when I could have a 20-meg drive, so, what the heck, I swapped "mechs." It was a piece of cake.

Using the ICD MIO Board

I just can't rave enough about ICD's MIO (Multi I/O board). It's easy to use, very flexible, and very, very useful. It has a serial RS232 port good up to 19.2k baud, a parallel printer port, a built-in RAMdisk, a built-in print spooler, and this really nifty SCSI port that I used to hook up my hard drive (but you already knew about that). Any software that will work with an ATARI 850 will work with an MIO. [Editor's Note: Except *Data Perfect* 2.04. —RR] The MIO uses its own separate power supply, so that you can boot off of the RAMdisk if the hard disk isn't fast enough for you. The MIO manual is everything you could ask for, and a bit more, including a handy list of some compatible hard disk mechanisms. In my manual there are discrepancies in the sector counts for the "mechs" listed, but I'm not complaining. The actual sector counts that I got on both the Shugart 712 and the Seagate ST225 were higher than the ones listed (but, strangely, less than calculated when saying Capacity/256 = Sector Count. 256 because double-density sectors are used), but I'm not complaining. *SpartaDOS 3.2* is recommended when using an MIO, but not required. *MyDOS 4.5* can also be used, if you are more comfortable with Atari DOS-type DOSes.

Mas Grande Mass Storage

So far I only have about two megabytes of "stuff" on my hard drive. (Wait 'til I raid my storage space!) Applications loaded up so far are:

BobTerm 1.21
SuperArc
SuperUnarc
Kermit65
Turboword
Turbobase
Textpro+ 4.5
ScrunchIII
DiskCommunicator 3.2
FlashBack!
SpartaDOS ToolKit

Then there are:

machine language utilities
BASIC utilities
text directories
data directories
game directories (plural!)
upload directories
download directories

...And I still have 56393 DD sectors left! That's the equivalent of 160 Atari 810 disk drives, or 112 Atari 1050 disk drives, or 39 Atari XF551 disk drives.

Postscript

Sadly, few applications written for the Atari 8-bit besides those listed above will work on a hard disk. Obviously, *NO* protected software can be loaded onto a hard drive, so that excludes *SynCalc, SynFile, AtariWriter+, AtariWriter80, News Station*, and who knows what else. The *First XLent Word Processor* isn't protected but won't load anyhow (actually, this may be because of my choice of DOS ... something I'll have to investigate). This is why I still have three floppy drives hooked up to my XL. But I'm not complaining. And I'm swapping floppies very, very rarely.

■■■■■■■

Constructing an 8-bit Hard Drive

32 Megabytes for $600

by Charles A. Cole

Introduction

Adding a hard drive system to the Atari 8-bit XL or XE series computers is now reaching the point of affordability for the average user. Prices for SCSI drives, in particular, are falling rapidly as this format gains acceptance among the MS-DOS manufacturers and the supplies increase.

I currently run two SCSI hard drives with my Atari 130XE. I began with a Seagate ST225N 20-megabyte drive, and recently added a Seagate ST138N 32-megabyte drive (the "N" denotes SCSI drives).

Choosing a SCSI/SASI Adapter

The biggest expense in any hard drive system is the Small Computer System Interface (SCSI) or Shugart Associates System Interface (SASI) Adapter. This adapter lets your Atari 8-bit talk to the world of Hard Drives. Your have two choices. First is the Multi I/O board (MIO) sold by ICD of Rockford, Illinois for a price of $239.95 for the 256K RAM version or $469.95 for the 1Meg RAM verson, plus a $19.95 adaptor board, which is required to use the MIO with a 130XE. [Editor's Note: These items are no longer in production or sold by ICD directly. As of March 17, 1992, ICD had the last three 1-Meg MIOs available for $350. - RR] Second is the Black Box (BB) from Computer Software Services of Rochester, New York, which sells for $199.95 without any RAM or $249.95 with 64K of RAM. If you want a cabinet for the BB, that will add $39.95 to its cost. One of these interfaces is required for a hard drive.

So, between ICD's MIO and CSS's BB, which is the better system? They perform basically the same functions. Unless you are really a power user, the ICD MIO 256K RAM version should serve your purpose. The MIO offers a RAMdisk, Centronics type parallel printer interface, an RS-232 serial printer or modem interface with a built-in R: Handler, a SCSI/SASI hard drive interface, and the ability to use its internal RAM as a printer buffer, RAMdisk, or both.

CSS's BB performs the same functions except for the RAMdisk and printer buffer, if you don't get the internal 64K RAM. The BB does offer several advantages over the MIO. CSS also has a floppy drive interface (Floppy Board) that plugs into the BB and eliminates the need for the Atari serial cable hookup and allows use of any standard floppy disk drive. The biggest difference, however, is in their hard drive formatting.

ICD supplies format software on a *SpartaDOS 3.2* disk, and recommends the use of *SpartaDOS* with its hard drives. Since they also market the *SpartaDOS Construction Set* and *SpartaDOS-X*, this is understandable. The MIO's instruction manual does explain, however, how to set up a hard drive using *MyDOS*. Either way, the hard drive is formatted in double density, since both *SpartaDOS* and *MyDOS* use this format.

The documentation provided with ICD's MIO requires very careful study prior to attempting a hard drive hookup. I owned the MIO several months before purchasing my first hard drive, and read through it several times before deciding that a SCSI drive was the simpler and cheaper way to go. Typical of most computer manuals, it is written in very technical terms that can be confusing and ambiguous to a novice. If you want to install a hard drive, but have had no experience with hardware hacking, someone in your local users group with this experience may prove most helpful. I had to phone ICD's customer service number twice during the installation of my first hard drive because of ambiguities in the MIO manual. After the first installation, adding a second drive was a piece of cake!

The BB from CSS has its format routine in ROM, and formats a hard drive in quad density, which gives it double the capacity offered with the MIO, regardless of the DOS used. This means that a 20-megabyte hard drive formatted with the BB will actually approach 40 megabytes capacity. In my particular setup, I am using the MIO from ICD simply because the BB was not available when I set up my first hard drive. If I ever have to replace the MIO, I will probably switch to a BB because of the additional features it offers.

Both of these interfaces will work with either a SCSI hard drive with an imbedded controller, or with a SASI hard drive (IBM-compatible) with a separate controller board. When comparing costs between the two types of drives, the SCSI appears to be the best arrangement because of its built-in controller. With an imbedded SCSI drive, you simply run a 50-conductor ribbon cable from the MIO or BB to the drive's controller. With the SASI hookup, you have to have a separate drive controller board mounted on or near the actual drive, and two additional cables to interconnect this board to the drive. A prime consideration here is the availability (or non-availability) and cost of these boards. ICD recommends only the XEBEC 1410(A), Adaptec 4000A, and Adaptec 4070 controllers. All three of these boards are very difficult to find, and are expensive.

Another benefit to using the imbedded SCSI drive is expandability--up to 8 SCSI drives can be connected along the 50-pin ribbon cable, and the cable can be up to 20 feet long. With separate controller boards and SASI drives, you would have to connect additional controller boards for each drive if you decided to expand your system, which could add considerable cost.

The Power Supply

No matter which type of hard drive you choose, it will require a separate, IBM-type power supply which provides both 5 and 12 volts DC. If you use the SASI drive with its separate controller board, you will have to power both the drive and the controller. Neither one will draw power from your Atari. I installed my drives in a dual hard drive cabinet purchased by mail order from Altex Electronics of Texas. (Check *Computer Shopper* magazine for their advertisements). This cabinet has its own power supply and fan, so it can be placed anywhere convenient up to 20 feet away from your computer.

Hooking Things Together

Connecting the drives is simplicity itself when using the imbedded SCSI system. The drive at the end of the cable should have a resistor pack, which normally comes on them. The first drive I purchased, the 20-megabyte ST225N, is at the end of my cable. When I added the 32-megabyte ST138N in December 1990, it was simply a matter of removing the resistor packs from the new drive, clamping an additional 50-pin connector onto the ribbon cable, and plugging it into the SCSI controller. A jumper block was placed on this drive to designate it as physical drive #1 (the first SCSI drive is always physical drive #0), and reconfiguring the MIO to recognize it as 2 additional partitions. The MIO will recognize only 16 megabytes per hard drive partition (a limitation of DOS), so I have had to configure both hard drives at 2 partitions each.

The MIO is also limited to recognizing 8 drives, with its internal RAMdisk being one of them, so you will have to give up something if you ever need to increase your hard drive capacity beyond these limitations. CSS, on the other hand, claims that their BB can partition as many drives as you want, up to 99. I don't have a BB to confirm this claim, but I think you would still be limited by your DOS. *MyDOS, SpartaDOS 3.2*, and the *SpartaDOS-X* cartridge, for example, all recognize only 8 disk drive assignments (9 with the cartridge if one is a RAMdisk), which limits any hard drive user to a maximum of 128 megabytes, even if you use no floppy drives at all.

No other DOS that I know of will work with a hard drive system, so you will have to switch to one of these three. I doubt if I will ever fill the 52 megabytes I currently have. I have one partition of 16 megabytes set aside for nothing but downloads from on-line services and BBSs, and still have several megabytes of space available on the other partition. Atari 8-bit programs are really very conservative of drive space compared to IBM, MacIntosh, or other brands.

How Much Does It Cost?

Through the careful perusing of advertisements in publications such as *Computer Shopper* and comparing prices or watching for sales, my hard drives have cost considerably less than an equivalent pre-built system such as ICD's FaST Drives. Other than the MIO or BB, which usually must be purchased directly from the manufacturer at retail, you can catch bargains if you look closely enough.

My system costs, spread over a 14 month period, have been:

- ICD MIO with 130XE adapter board ($260)
- Dual hard drive cabinet with power supply and fan ($60)
- ST225N 20-megabyte SCSI drive ($239)
- ST138N 32-megabyte SCSI drive ($257)
- 50-pin ribbon cable and connectors (20 foot) ($24)

Total Cost = $840.

Notice that there was only an $18 difference between the 20-megabyte drive and the 32-megabyte drive, because prices are falling rather rapidly and there was a 14-month gap between my purchase of the first and second drives.

The Bottom Line--Pros and Cons

So, what are the advantages to having a hard drive? Speed is the primary benefit, but disk swapping is also cut way down or even totally eliminated. I don't operate a BBS, but a hard drive would be indispensable for a BBS operator. As an example of the difference in load time between a hard drive and a floppy, my *BobTerm* communications software (the best offered, in my opinion) loads in only 2 seconds from the hard drive, but loading it from a floppy takes nearly 30 seconds. GIF picture files load much more quickly from a hard drive, and download time on CompuServe, GEnie, and Delphi is cut considerably because the file saves are instantaneous.

File sizes are not limited, either. For example, I use a database program on the hard drive to maintain my disk library of 400+ double-sided, double-density disks (a listing that requires 87 pages to print out). When using floppy disks, even in double density, this listing was spread over 6 disks. On the hard drive, it is all in one file, so adding entries, sorting, and printing is much more convenient and fast.

Programs such as *Daisy Dots III* can have all of their modules combined into one subdirectory, which makes them run much faster. I have all of the fonts (80+) on my hard drive along with the program modules, so I don't have

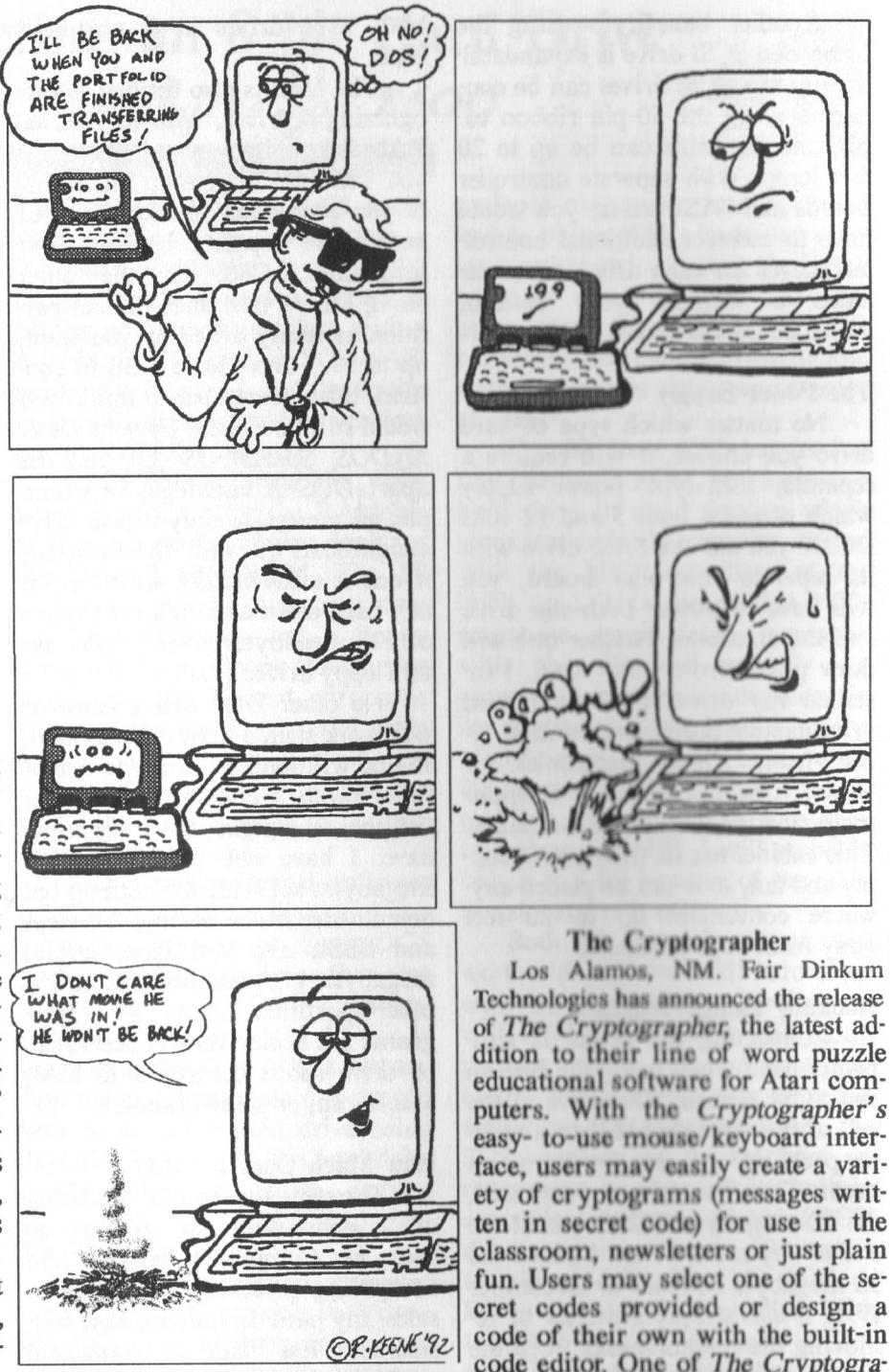
to do any disk swapping at all to print out a document that uses many different fonts.

What are the disadvantages to a hard drive, other than the initial cash outlay that must be made? I don't run mine full time, so I park the heads before I turn off the 20-MB drive; the 32-MB drive has auto-parking heads. Since I use the 20-meg drive as my boot drive, it takes about 30 seconds for it to get up to speed and be recognized by the MIO when first turned on. Even then, it sometimes will not "unpark," and I have to boot from a floppy and use ICD's MIO Configuration program to get it going.

A good utility program such as ICD's *Cleanup*, available on their *SpartaDOS Tool Kit* disk, or *CheckFrag* and *FATBack*, utilities available on CompuServe, are necessary to prevent file collisions if you do a lot of erasing or moving around of files. I periodically copy an entire partition to my download drive, reformat the original partition and then reload everything back to it to keep the files running at optimum speed. Because of a hard drive's capacity, it can be slowed down considerably if your files get fragmented through frequent updating, deleting, or moving. A good "Defragmentation" utility such as *SpinRite* or *The Norton Utilities* for MS-DOS systems would be worth its weight in gold, but I know of no one who offers such a program for the Atari 8-bit.

Backups of valuable files must still be maintained on floppy disks, because hard drives are not infallible. Despite their speed advantage, they do sometimes get their brains scrambled and overwrite existing files, or will lock up on you if you have a power surge, brownout, etc. A good line conditioner (RF/surge/EMI filter) is essential to a hard drive's health.

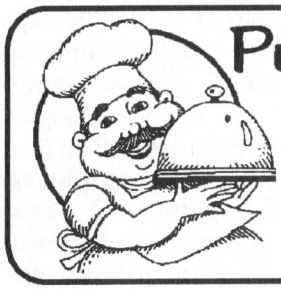
All in all, I've found my hard drive to be indispensible and well worth the investment. With a little determination, money and effort you can put one together yourself.



The Cryptographer

Los Alamos, NM. Fair Dinkum Technologies has announced the release of *The Cryptographer*, the latest addition to their line of word puzzle educational software for Atari computers. With the *Cryptographer's* easy- to-use mouse/keyboard interface, users may easily create a variety of cryptograms (messages written in secret code) for use in the classroom, newsletters or just plain fun. Users may select one of the secret codes provided or design a code of their own with the built-in code editor. One of *The Cryptographer's* more unique features is it's intelligent assistant, which can actually help the user SOLVE cryptograms as well as create them. Text files of virtually any length may be quickly encrypted or solved and finished cryptograms may be printed or saved to disk.

Fair Dinkum Technologies, PO Box 2, Los Alamos, NM 87544 (505) 662- 7236.



Public Domain Potpourri

by Brian Miller

Four Utilities:

STZIP 1.1
ST Tools 1.8
UnForm 3.0
Convert1

This month I would like to present several utility programs which should be of interest to *Current Notes* readers. These programs should make your computing life more productive, and perhaps a tad less frustrating.

STZIP 1.1

by Vincent Pomey

Call any bulletin board and you will undoubtedly find that most program files are compressed to save disk space and on-line time. A few years ago, I could easily extract either ST or PC files using my Atari's friendly TOS-based programs. In fact, I preferred using my Atari ST, since I often had trouble remembering the required syntax required to extract files using my PC. In contrast, once I had installed the ARCX program as an application, all I needed to do to extract files was to double click on the compressed file.

Now most PC bulletin boards use the "ZIP" method of compression rather than the less efficient "ARC" method. *STZIP 1.1* returns the flexibility I had enjoyed until the Zip compression method became commonplace. This friendly little program lets me use my ST to compress or extract files which I use with my PC. Once again, I can use my ST exclusively for all my telecommunication needs.

(Note: STZIP 1.1 is available in the CN Library on disk #652. ST Tools, UnForm 3.0, and Convert1 will be added to the next CN utility disk. -JW)

ST Tools 1.8

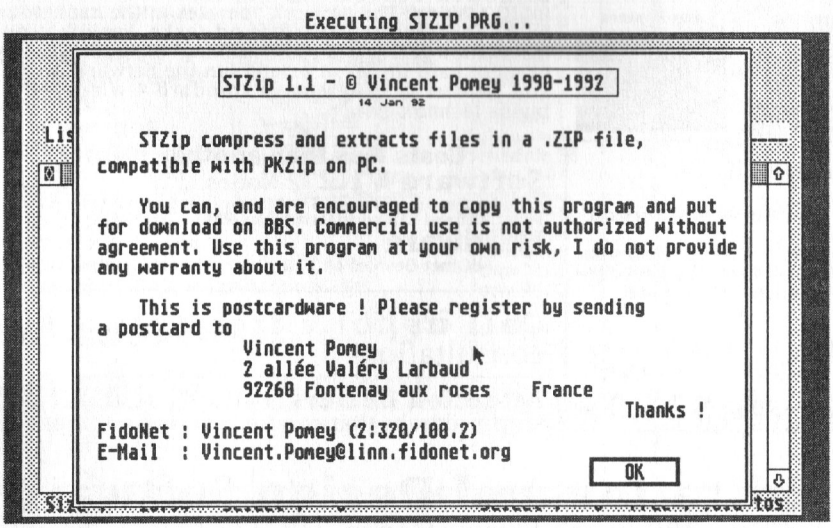
by Stephen Cornio

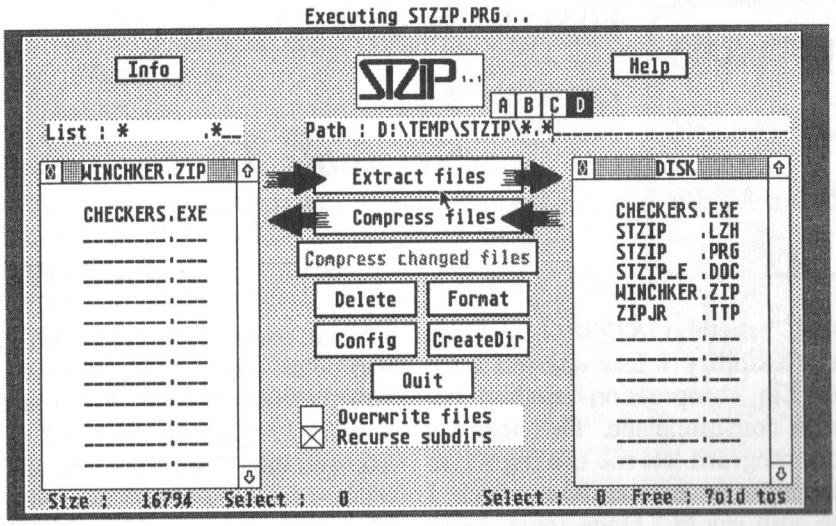
ST Tools is a shareware program which bears close resemblance and functionality to earlier versions of *PC Tools*, one of the most popular utility programs available for the PC.

ST Tools displays a directory tree for the drive selected. The program lets you view files as icons, large or small text. You can even view files in hexadecimal format, which could be of particular interest to more technically minded computer users. The program offers two features which I was particularly impressed with. *ST Tools* lets you list files by a variety of ways, including a "no sort" mode. This option is particularly handy when working with auto folders. Some programs need to be loaded first or before other programs in the auto folder to work correctly. The no sort view lets you determine the order of files in your auto folder, and should make the task of reordering files easier.

The neatest feature of *ST Tools* is its ability to optimize disks. Programs load more quickly and are prone to fewer errors if stored in contiguous blocks. Over time, files become fragmented as you continue to delete and save files to a disk. *ST Tools* provides a Check File Structure option. Once the program searches the selected disk for "orphaned clusters" or other problems, it lets you optimize the disk. This process will reorganize data so that, once again, data are stored in contiguous blocks. The author advises you to back up information first, as a safety precaution. I did not heed this sound advice, but am happy to report that the file optimization worked without apparent problems. The optimization process is not entirely automatic. The program flags any clusters of data that it is unable to unfragment, and prompts the user to continue or abort disk optimization.

Up to now I have used Norton's *Speed Disk* with *PC Ditto* to tune my ST's fixed drive. In my opinion, the Ten dollar registration fee of *ST Tools* is worth the optimization feature alone. *ST*





Tools is a welcome addition to my software library.

UNFORM 3.0

by Bill Aykok

Most word processors use a Carriage Return/Line Feed combination to mark the end of a paragraph. Unfortunately, text files captured from bulletin boards and some text processors, including the Atari Portfolio's, use these control codes to mark the end of every line. Reformatting text can be quite a chore if you need to make significant edits, or if you try to change margin settings. *Unform 3.0* automatically strips trailing spaces and CRLFs from the selected file. This makes it much easier to work with the file in your favorite word processor. *Unform* gives you the option of retaining CRLF's used to separate paragraphs. *Unform* can be executed as both a standard program or as a desk accessory. This gives you the ability to process files from within GEM based programs, an especially handy option.

Convert1

by Brian Miller

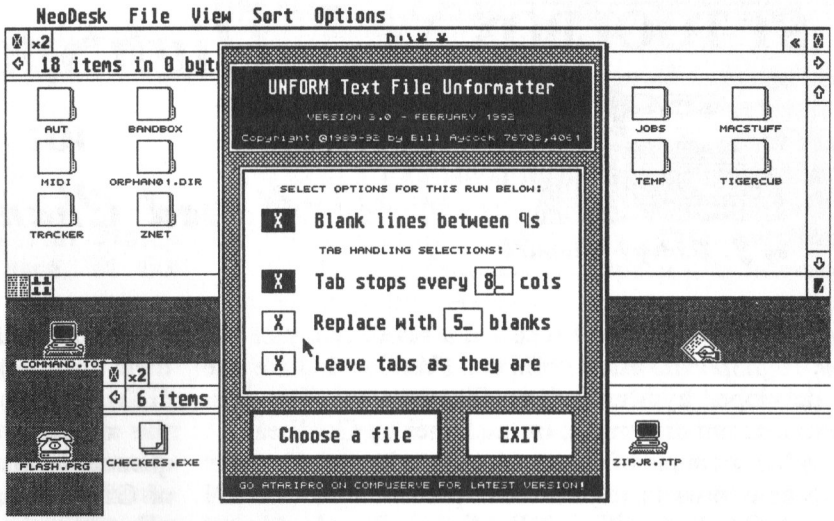
Can you believe it? After countless reviews of others' efforts, I am finally submitting a program which I wrote for your scrutiny. *Convert1* is a simple utility that also strips paragraph markers from text files. I wrote the program in *Turbo C++*, and it can be run on a PC, but is small enough to be used directly on a Portfolio.

In fact, I wrote this program to facilitate the process of editing documents that I had originally created on my Portfolio. As much as I have enjoyed the "write anywhere" convenience my Portfolio has given me, I have often spent a lot of time manually stripping paragraph

markers from the my work, once I have transferred the document from the Portfolio to my word processor.

Convert1, crude as it is, has saved me a fair amount of time and frustration. The program prompts you for the name of the file to convert and also prompts you for a new name to save the file as. You have the choice to overwrite the original document or not. The screen prompts and suggestions are a bit cryptic, but I wanted to take no more than 39 characters for each line in order to fit within the Portfolio's screen. I used the LZEXE program I mentioned last month to reduce the program's size to under 10k.

As time permits, I plan to continue work on this program. The program does a better job if you set the margin to 60 characters before processing. Please feel free to enjoy it if it helps, and try to go easy on me with your criticism. As meager as my effort may be, I believe I have developed a better appreciation for how much effort real programmers must devote to writing even the simplest program.

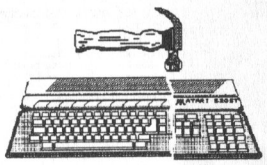


Before closing let me remind you that if you need a fairly complete listing of programs in the *Current Notes* Library, please consider selecting CN disk #480D. I have received one request for a listing of files. This leads me to believe that other readers might also appreciate a comprehensive listing of available files in the *Current Notes* Library.

Take Care and, as always, please feel free to send worthy examples of public domain and shareware software to:

Brian Miller
13848 Delaney Road
Woodbridge, VA 22193

ST TOOLBOX



by J. Andrzej Wrotniak

HighSpeed Pascal for the ST

A Missed Chance of Being the Best

A few months ago I received a review copy of the new *HighSpeed Pascal* compiler (Version 1.1) for the ST, developed by Mr. Christen Fihl for the D-House in Denmark and distributed in the States by GoldLeaf.

After a couple of days of toying with the compiler I was able to write a "first look" preview of it (see CN of last October), titled "HighSpeed Pascal: Almost (But Not Quite) There"; this title seems to be a quite accurate summary of my first (and not only first) impressions.

Writing a full review of a programming tool is, however, not a quick task - it can be done only after having used the product for a considerable amount of time, including completion of a non-trivial project or two.

Finally, I was able to find enough time to sit down and start using the compiler seriously. By having completed two projects, I think I have gained enough experience with *HighSpeed Pascal* - enough to share my opinions with our readers without the risk of trashing a good product or recommending a dog to you.

Trial by Fire

My experience is limited to running *HighSpeed* Pascal on a 1040ST with 2.5 MBytes of memory, TOS 1.4, a monochrome monitor and a hard disk drive. (It would also run in medium resolution, and from one double-sided floppy drive, although two are better.)

The first project I used *HighSpeed Pascal* for was an arithmetic expression parser and evaluator and a text-driven calculator (no GEM interface). On the one hand, I decided to replace expression handling in *El_Cal* with something smarter, on the other, I badly needed a simple but powerful PC-DOS calculator for my palmtop HP-95LX; and *HighSpeed* claims source compatibility with the *Turbo Pascal* for DOS. Developing an application on one system, then recompiling and using it on another one, seems to be a good way to check any compatibility claims.

The second project (or rather two projects) was to port into *HighSpeed Pascal* two versions of my very old *AW_Print*. Originally written in *Personal Pascal* (still quite popular in Europe as *ST Pascal+*), the program has since been ported with modifications into *Prospero Pascal* as well as into *Prospero C* and *Laser C*.

The Pascal compilers mentioned above (or rather their libraries) differ significantly in their approach to GEM. *HighSpeed* library, although basically following the original Digital Research C-based calling sequences (as in Prospero), also contains an additional set of GEM bindings in the *Personal Pascal* flavor, so this was an opportunity to give the GEM procedures of both kinds a decent workout.

The projects used quite a lot of Pascal features, including extensive file I/O, precompiled libraries, string handling, quite convoluted pointer dereferencing, type conversion (or type-cheating) and more. I think I am ready to write this review.

Full-strength Modular Programming-at Last

For me, the major strength of the *HighSpeed Pascal* is modularity, inherited from *Turbo Pascal* (more accurately, its Version 5.0, without object-oriented extensions), with which the authors claim compatibility.

A library of related procedures (in strict Pascalese: functions and procedures), some of which may share global data objects, can be implemented as a module (here called *unit*), consisting of two parts:

* *Definition*, containing declarations of procedures and data objects accessible from other parts of the program, and
* *Implementation*, with the actual code of those procedures, as well as with procedures and data objects accessible only from within this very unit.

Thus, one of my units (truncated for the purpose of presentation) looks like this:

```
UNIT TextHelp;

INTERFACE

USES H_Types, StrUtil, Dos;

VAR LastErr: INTEGER;

FUNCTION Start_Help( filename: STRING );
PROCEDURE Show_Help( topic: STRING );
PROCEDURE Show_Error( number: INTEGER );

IMPLEMENTATION
```

```
{***
Here follows the full code of the above proce-
dures, as well as of those used only internally.
***}

BEGIN
{***
And here comes initialization code, i.e. state-
ments which will be executed just once, at the
beginning of program run.
***}
END.
```

Note that the definition part defines *what* the unit procedures do and how they are used from other units (including the main program), while the implementation part determines *how* this internally happens. For the *client programmer* (i.e. the person from whose code the unit is being used) the implementation is usually largely irrelevant—this comes in very useful even when he (or she—greetings, Dorothy, and get well soon!) is also the author of the used unit. All variables declared globally in **TextHelp** are hidden from client units, except those specified in the interface (here: **LastErr**).

This is a great improvement as compared to *Personal Pascal*, where modularity was implemented on a very rudimentary level (all global variables in a unit had to be the same as in the main program—who was the smart guy who came up with this nightmare?) or even *Prospero Pascal*, which required re-declaring of all used procedures in client units (this had its advantages, creating opportunities for type-cheating when it was necessary).

All it takes to make these procedures and data objects accessible from another unit is to put the unit's name in the **USES** clause there. For example, our **TextHelp** can see interfaces of three lower-level units: **H_Types**, **StrUtil** and **Dos** (the last one being a part of *HighSpeed* standard libraries).

Very, very neat-but why did we have to wait so long?

Other Extensions to the Standard

Other *HighSpeed* (or Turbo) extensions to the Pascal standard (remember: Pascal without extensions is virtually useless!) are less important, but still useful, some on the verge of being absolutely necessary. Let me give a brief overview of those which caught my attention:

* Type casting: using a type name as if it were a function converts values from one type to another (without checking).

The simplest (and most useful) application of this feature is to perform a transition opposite to **Ord()** for enumeration types. For example, if we have

```
TYPE Color = ( C_Black, C_Red, C_Blue, C_Green );
```

then the **Color** values can be converted to integers by a standard **Ord()** function, e.g. **i:=Ord(C_Blue)** will assign 2 to **i**. There is no simple way in Standard Pascal to perform a translation in the opposite direction. In *HighSpeed Pascal* we do it just by writing **c:=Color(i)**, where **c** is, obviously, a **Color** variable.

Another common use for type casting is conversion between pointers and long integers. If **Rec** is a type and **RecPt** is a pointer type to **Rec**, then we can write **next := RecPt(LONGINT(this)+SizeOf(Rec))**, assuming that both **next** and **this** are of type **RecPt**.

* Generic **Pointer** type, assignment-compatible with all pointer types. As the previous one, this standard extension makes the language more useful without sacrificing much of the safety of type-checking.

* Typeless procedure parameters (this allows for some degree of type-cheating).

Specifying a parameter the way **x** and **y** are specified in

```
PROCEDURE SwapRec( VAR x, y; INTEGER size );
```

will persuade the compiler to accept *any* variables as the first two actual parameters in procedure calls, for example **SwapRec(this^,next^,SizeOf(Rec))** with dec-

larations as described above. The type-less parameters will be always passed by reference (see *Programming as a State of Mind* from the December'91 issue of CN), and, obviously, you can mess up a lot if you do not watch what you are doing.

* In-line assembly code. This may come handy if you want to do some low-level programming. I have not used this feature.

A Spoonful of Sewage

My bad luck: almost every time I see something which looks like a barrel of wine from a distance, a closer look (or sniff) reveals an unwelcome presence of a spoonful of sewage in it. Needless to say, this makes the wine *much* less acceptable.

Unfortunately, this is also the case with the *HighSpeed Pascal*. I was already quite excited with the compiler, and then the fine print revealed two painful limitations:

* *HighSpeed* procedures do *not* accept parameters of procedural types. Some people may not be hurt hard by this omission, but for a math programmer it is more than just annoying.

Let us design a simple function computing an integral:

```
FUNCTION Integ( f: FUNCTION( x: REAL ): REAL; a,
b: REAL );
```

This notation means that **Integ** accepts three parameters. The last two are, obviously, integration limits. The first one should be a **name** of another function, accepting one **REAL** parameter and returning a result of the same type, as in **z := Integ(sin,0.0,pi)**.

This is a feature *required* by the Pascal standard (*Turbo Pascal* implements it somewhat differently, but in a more convenient fashion), and even simple languages like Algol, FORTRAN or C have it. Its absence in *HighSpeed Pascal* is, believe me, very difficult to work around.

* Brain-damaged data size limits.

If the previous limitation can be painful to some programmers, this one may hurt most of them. As a part of its PC-DOS inheritance, *HighSpeed Pascal* imposes 32k size limits all over the place, to the point of making it useless, or at least very cumbersome, for some applications.

First of all, no unit can declare more than 32 kilobytes of data (whether in one or more objects does not matter). If you want to declare an **ARRAY [1..4099] OF REAL** (the **REAL** type is 8 bytes long), just forget it.

Yes, you can assign larger chunks of memory on the heap, but still, you cannot access them with simple array subscripts (the system will just bomb in a most spectacular way); you have to do explicit pointer arithmetic with typecasting to get anywhere.

Second, the object code of no unit can exceed 32 kilobytes in size. Library units are usually smaller, but quite often cutting the main program into smaller pieces is very inconvenient.

A less painful limitation is that a program cannot consist of more than 64 units. For small to medium projects this is OK, but some projects may run into problems (my *El_Cal* uses about 100 units ranging from 1000 bytes to 70 kilobytes in size).

The above limits are not very clearly stated in the manual. I found them only in the appendix on compilation errors. Some of the users will live with them just fine. I won't. A shame.

One may try to justify all this with the greater speed of the short addressing mode, obviously used in the code generated by the compiler. I will not pay this price. Remember *Megamax C*, the original version? It was using the same approach. When its successor, *Laser C*, was introduced, the 32k limits had been lifted, but, in spite of that, the authors found enough space for improvement in other places that the compiled programs actually run *faster*!

If I am coughing up all this money for extra megabytes of RAM, I want to use it freely, with linear address space. If I wanted to live with memory segmentation, I would have bought myself a PC-clone. A sucker is born every minute.

More Wine...

Let's face it: this seems to be the fastest compiler I have yet seen on the ST. It is at least as fast as *Laser C* (although I have not run benchmarks here), and *much* faster than my faithful *Prospero Pascal*. Of course, you can compile, link and run programs without leaving the editor and this, taken together with the screaming speed, makes program development a pleasure.

The produced code is very tight (a 10-15% improvement over *Personal Pascal*, which already generates small executables) but not faster than Prospero's (which still is a speed champion). Not really slower, either.

Generally, while developing my new parser/calculator from scratch, I found *HighSpeed Pascal* as fast and convenient as *Turbo Pascal 6.0* on a 386-based PC-clone. Most impressive.

The on-line help is very good, too. You may highlight a library function name in your code and press the Help key. A help window will pop up, open on the function definition (or, at least, on the description of the appropriate library unit). Cross-references to other help topics are underlined, and double-clicking will take you to proper help pages. You can also paste fragments of the help text into your own code. All this makes the manual almost redundant (and this is a very lucky circumstance, as we will see later).

The Library

The system library, logically divided into units (some of them do not need the USES clause) is also quite fine.

The graphic part requires special attention. As I have already mentioned, the GEM bindings (both AES and VDI) are provided in two flavors: the "standard" one, repeating the original DRI calling sequences (and used in *Prospero Pascal*), and a more friendly but somewhat less powerful set, compatible with the *Personal Pascal* library. Both versions behaved properly in my programs ported from those two Pascal dialects.

I have just two small complaints here. First, Prospero provides some handy extensions to the DRI standard. The most useful ones are `Objc_Text()` and `Objc_NewText()`, to fetch text strings from or to store strings in AES objects (like dialog box fields). It is not difficult to write such extensions yourself in *HighSpeed Pascal* (twenty minutes if you are lucky), but less advanced users might prefer to have these procedures included. Second, all GEM routines accept C-style strings—this means you have to add a null terminator to every string and pass the address of its first element (it becomes somewhat more cumbersome in fetching, as then you have to count characters manually and reset the string length). Nothing really important, but using "regular" Pascal strings in the bindings would be more convenient.

For those porting graphic applications from PC-DOS, there is also a `Graph` unit, compatible with the PC-DOS Borland Graphic Interface (only output, no user interaction). I have not tested this unit, but one of my correspondents reported having used it with no problems.

I am also missing a feature: a civilized way to handle execution errors, mostly (but not only) in math. Prospero allows you to define your own error handling procedure, which will be called in case of recoverable execution errors (like, say, division by zero). A handler may raise a flag, display a message and the program then may ask the user for new input. For math errors, the `matherr()` function in the ANSI C standard provides a similar solution.

HighSpeed Pascal will not abort a program if a floating-point error is encountered; the operation result will be set to NAN ("not a number") instead. This is better than in *Turbo Pascal*, where error handling (or rather its absence) is the worst problem (at least from where I stand). Allowing for user-defined handlers would be, however, a major improvement. Even some primitive BASIC dialects have this feature!

Compatibility with Turbo Pascal

My parser/calculator program consisted of eight units, a total of about three thousand lines of code, written from scratch. I have not encountered any significant problems with Turbo Pascal compatibility - code developed in *HighSpeed Pascal* would compile and run just fine on my HP95LX palmtop (yes, I am running *Turbo Pascal 6.0* on this little devil!). There were two or three places (some BIOS calls) which required customized handling, but this was also quite simple thanks to the presence of compiler directives `$DEFINE`, `$IFDEF` and `$ENDIF`, allowing for conditional compilation. Other Pascal compilers on the ST could use a similar approach.

The only major incompatibility between *HighSpeed* and *Turbo Pascal* (on the v.5.0 level, without object extensions) is the absence of procedural types in the former, somewhat related to the procedural-type procedure parameters mentioned above. Aside from that, this exercise in two-system programming has been quite a pleasurable experience.

Bugs—Not Many of Them

The other project (or two, depending how you look at it) did not reveal many problems with *HighSpeed Pascal*. The most irritating one was related to the compiler shell itself. When a program is being run from the shell, the default drive and directory are still set to where the compiler (and not the program in question) is. This means, that there was no easy way to make the program find a data file residing in its own directory! This can sometimes be worked around by using

a full file name (and the SetDrive() function), and sometimes by passing the full name to the program via a command line from shell. Still, a program running perfectly fine from the desktop may misbehave when run from the shell, and many users (not just absolute beginners) will find it a problem.

I also found some minor errors in interpreting the Pascal standard. To present just one example, if type **LPtr** is defined as **^LONGINT**, then—treating a cast as a function call—**LPtr($24BA)^** should be treated as a valid expression of **LONGINT** type: you should be able to dereference *any* pointer expression. *HighSpeed Pascal* will flag this as an error, forcing you to use an intermediate variable of the **LPtr** type, and dereferencing only this variable. None of these errors present any problems (if you know what you are doing, that is).

The shell itself is somewhat flaky. For example, redraws of foreign windows (call the *Neo Control Panel*, move it on screen) cause the mouse pointer to disappear, and trying to move the edit window while a block is defined may cause text scrolling instead (happens every time when the block has been defined from bottom up). Still, given the general speed and convenience of the programming environment, I was able and willing to live with some of the minor misbehaviors. (By the way, I *hate* the way *HighSpeed* handles marked block, replacing it with typed text even if it is outside the window; but this may be a matter of taste.)

Other Remarks

HighSpeed Pascal introduces three real types (single, double and extended, the last one 10 bytes long) and some extra integer ones, including **LONGINT**, **WORD** and **BYTE**. The last two caused me a lot of confusion, as they are not really defined as separate types, but rather as subranges of **LONGINT** and **INTEGER**, respectively.

What is the difference, you may ask. Well, the bottom line is that **BYTE** is *two bytes* long, while the size of **WORD** is four bytes, or two words! Worse, there is no way to introduce one- or two-byte unsigned integers, quite useful in many applications!

If I need a subrange, I can define it myself, no sweat. The choice implemented in *HighSpeed* is not only confusing, but also quite inconvenient.

The Documentation

I was happy with the manual. Not because it was so good, but because, finally, I found someone with English even worse than mine, sometimes to the point of unreadability. You can see that it was written by a competent person, but hell, this is (directly, at least) a British import, and those guys are supposed to speak some English!

The book has been rushed to print: the editorship could be *much* improved, too. Some sections end in mid-sentence. In some sections you find just placeholders with question marks.

The DOS and BIOS sections require some additional source of information; at least some rudimentary descriptions would be welcome.

While not being an outright dog, the manual ranks in the bottom half of the spectrum I have seen on the ST, clearly far behind *Prospero* and *Personal Pascal* or *Laser* and *Mark Williams C*, ahead only of the *GST C* and *GFA BASIC 3.0*. Still, it is mostly adequate and the good on-line help makes up for much of the problem.

The Jury Returns

As you might have noticed, my attitudes towards *HighSpeed Pascal* vary from quite enthusiastic to quite critical. I hope you'll understand: for me compilers are important tools, and it is difficult not to become involved when your tools are concerned. Therefore, it is not easy to reach an unequivocal verdict here.

* **For:** excellent modularity, compatibility with *Turbo Pascal*, screaming compilation speed, tight code generation.

* **Against:** the 32k limit for unit data and code, procedural parameters not implemented, absence of "real" byte and word types, no user-defined error handling.

* **So-so:** the implementation could be cleaner, but it is quite good for an early version; the problems can be worked around.

Note that all the "against" arguments are a matter of *design*, not implementation. I hope that when more users raise objections similar to mine, Mr. Fihl will take this into account and then *HighSpeed Pascal* may become the best compiler on the ST market. If any upgrades or changes become available, watch these pages.

In the meantime, I can clearly recommend *HighSpeed Pascal* as a good choice for those who want to learn the language or to write small-to-medium size programs—or to port to the ST code written in *Turbo Pascal*. For larger projects, *Prospero* (with adequate degree of modularity, linear address space and user-defined error handlers) still remains my choice.

[Note: *High-Speed Pascal* as well as other Hi-Soft products had been distributed in this country by Goldleaf. Goldleaf no longer represents Hi-Soft. *High Speed Pascal* ($180) and *Lattice C* are now distributed by Pacific Software. This company also distributes *Prospero Pascal* ($150).]

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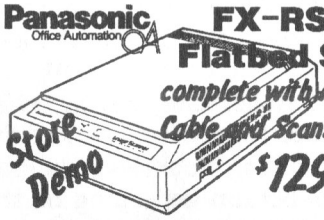

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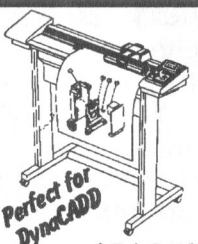

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Daisy Chain Your Disk Drives - Automatically

by Randy Kwak

What you need:
- one relay (Radio Shack part 275-248)
- some insulated wire
- soldering tools
- ohmmeter (recommended)
- to locate and cut two traces

The fact that there is an out port on the external Atari disk drive led me to believe that it would always be possible to daisy chain another external drive to my computer (a 1040STF) sometime in the future. When I finally took the plunge and graduated to a double-sided disk drive, I was very disappointed to find that only the first drive in the chain was actually accessed by the computer. (Yes, I know-I read the manual, too; but why have a perfectly good port just sitting there wasted?) Apparently, this was for the benefit of owners of the first 520STM's, which did not contain any internal drive whatsoever.

This left me in a quandary: should I abandon my faithful (albeit single-sided) SF354 in favor of my new double-sided disk drive? It seemed a waste to just discard it, and the possibilities of selling it at anything but a bargain-basement price were next to nil. A single-sided drive could still come in very handy for copy-protected and other single-sided disks that do not have to be booted in the main drive. I balked at the thought of buying a box to switch between the two drives and started to resign myself to the fact that I would only be able to use one of them at a time-but the empty port still beckoned.

I finally opened up the box housing the external single-sided drive to look at the board inside and, after studying the circuitry between the in and out ports, decided that it would be possible to use some kind of internal switch to toggle between the two drives. A 12-volt relay was installed rather than an ordinary toggle switch to keep switching to a minimum, i.e., drive turned on = drive activated; drive turned off = drive acts as a "through" port for the second drive.

Method of Installation

First, unplug the connector cable and the power cable from the disk drive you are working on; this should be the first one in your "chain." Then turn the drive over and remove the four screws (two at the back, two at the front) which keep the top on. Other screws (three or four, depending on type of drive), which are located directly below the drive mechanism and which hold it in place do not have to be removed unless you are having a real problem slipping the top of the drive off. The board you will be modifying may or may not be screwed in to the top of the drive. In any case, it is a good idea to proceed with caution when removing the top. Once the case is open, carefully remove the power plug (4 wires) and the ribbon cable connector from the back of the drive mechanism after noting how they should be re-attached.

Now, looking at the back of the board, locate pins 5 and 6 of the In port, and pin 5 of the Out port (see Fig. 1).

For installation of the Radio Shack relay, refer again to Fig. 1. First, the trace connecting pin 5 of the In port and pin 10 of the ribbon hookup is cut (the trace may be on the top or bottom depending on the board you have). A wire is then connected to pin no. 5 of the In port and the "COM" connection of the relay. A second trace is cut between pin 6 of the In port and pin 5 of the Out port (again, the trace may be on the top or bottom). Wires are then attached to complete the remaining switch connections ("NO" to pin 10 of the ribbon connecter; "NC" to pin 5 of the Out port). Connections for the coil that activates the switch are made on the bottom side of the board: one is the 12-

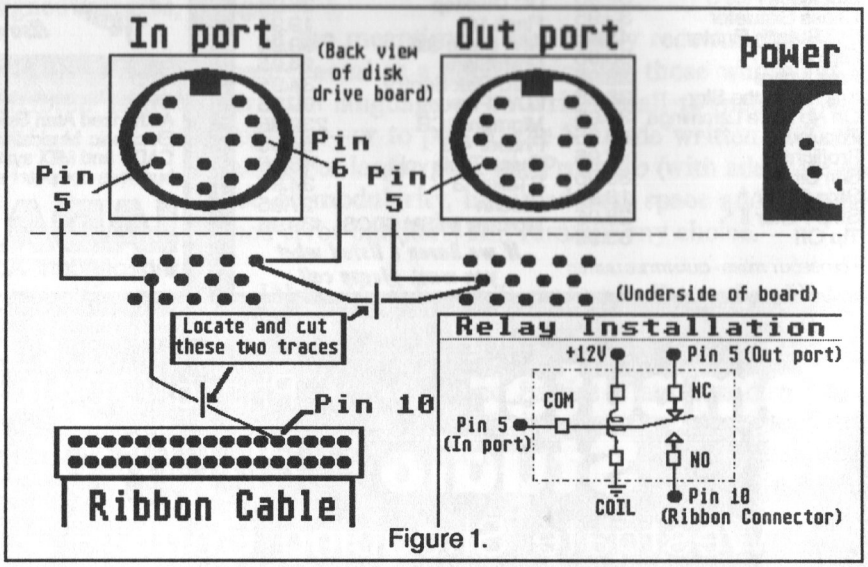

Figure 1.

volt connection point to the switch, and the other is a suitable ground (polarity is not important). Make sure before you solder your coil connections that the 12-volt point you have chosen is activated *only* when the drive is turned on. Before powering up with the board replaced in the drive, it is also a good idea to use an ohmmeter to check that both traces are really cut. Then plug in the power cable to make sure that the relay actually switches between the two drives ("NC" and "NO") when the power is turned on. Once everything checks out, the relay can be placed or glued in upside down beside the ribbon cable connector on the upper side of the board to allow easy future access before the drive is re-assembled. Fig. 2 shows the modification as it looks on when you are done.

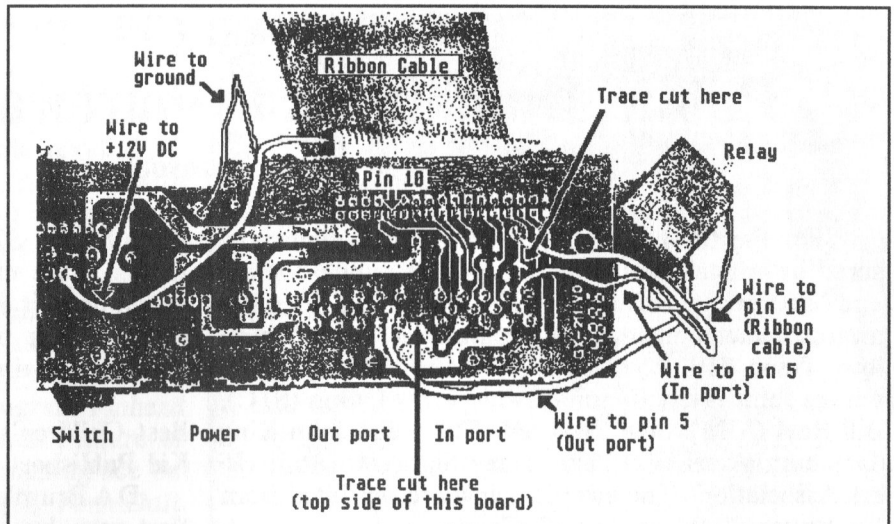

Figure 2.

As in most hardware modifications, your warranty will be void if you open up your drive; moreover, I accept no responsibility for the consequences of installing a relay as outlined here-it works well for me and it should work fine for you, too.

Once you have your drive back together, you may also want to construct a "y-connector" using 5-pin DIN plugs so that one power supply can be used with both external drives (as I did).

Now Switch Drives-Automatically

The drive with the relay must always be the first drive in the daisy chain since it can now act only as a transfer point between the computer and the second drive. When the drive is turned on, however, it stops being a transfer point, "intercepts" the drive select signal, and becomes the active drive. Switching back to your second (third?) drive is simply a matter of turning off the power switch. The "do's and don'ts" of this method should be fairly obvious- never switch over to the other drive if either one of the external drive "busy" lights is on (even though you may think it is safe because the motors of both external drives are whirring). The only odd thing I have noticed is that updates on the "B" drive are only obtained after switching if you close the "B" window and then reopen it (rather than hitting the "ESC" key when the window is active).

At the moment, I am only using this system with one single-
sided and one double-sided external disk drive. The potential for expansion to include a 5.25" drive or a high-density drive as part of the chain seems unlimited and should make it possible to keep the "dinosaurs" out of the closet even as additions are made to the disk drive system.

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3rd Annual CPU
Public Domain and Shareware Awards

by Stan Swanson

[For the third straight year, *ST Connection* sponsored its annual awards for the best in public domain and shareware software. This year's ten-member awards panel consisted of programmers D.A.Brumleve, Tyson Gill, Rod Martin, and Gordon Meyer; and editors John Peters (GEnie Lamp), Terry Quinn (STC), Bill Rayl (AIM), Stan Swanson (STC), and John King Tarpinian (Atari User); and Derek Signorini (Atari Users Association). The awards below are reprinted from the January 1992 issue of *ST Connection*.]

Best Utility: Arc Shell

It seems as if Charles Johnson's stiffest competition in this catyegory always comes from himself. Two years ago Arc Shell took the award. Last year, it was LG Selector utility. This year Arc Shell returned to the top and beat out, what else, LG Selector for top honors. Others getting a serious look were Cheetah, Desk Manager, FormDoIt and Virus Killer.

Best Personal Productivity/Business Program: Opus

This cateogry was one of the closest in this year's balloting as only 2 votes separated the top 4 programs. *Opus* has always made a good showing in previous years and it looks like a little patience pays off as the spreadsheet program nipped *Make*A*Date*, *B/Stat*, and *CAL* to steal first place this time around.

Best Accessory: Cal

Everyone seems to love a good accessory and there were many of them gathering in the votes this year. But Bill Aycock's *CAL* program outlasted *EdHak* and *DC Formatter* for top honors. *DC Stuffer* and *Mystic Formatter* took in their share of votes as well.

Best Telecommunications Program or Utility: Aladdin ST

After some close voting in the first few categories, the winner in the telecommunications bracket left all contenders in the dust. *XYZ Modem*, *DTerm* and *Van Term* all gave it their best, but GEnie users really spoke out on this one and voted Aladdin ST #1 by a landslide.

Best Graphics Program or Utility: PicSwitch

PicSwitch from John Brochu won this award the last two years. Well, some things never seem to change as it squeezed by IMB Viewer 2 and IMG Show in another nip-and-tuck battle and remained king-of-the hill. *Art-ST* and *IMG Squeezer* also received attention. (We can't help but wonder what *PicSwitch* would do if it ever received an update and a few more features. The program hasn't been updated in years and still remains a favorite!)

Best Children's or Educational Program: Kid Publisher

D.A.Brumleve's *Kid Publisher* took this award our first year, but was edged out by *KV Geography* last year. The two programs battled it out again this year and *Kid Publisher* survived the challenge. Others receiving attention were *Body Shop* and *KV Butterfly in the Park*.

Best Game or Leisure Program: Demolition Man

Demolition Man, a nifty strategy game brought to us by Clayton Walnum, blasted away the competition in the "fun-and-games" category for top honors. *Lundacy!* and *Poker Squared* fought to a tie for the bride's maid position.

Best Programming Software or Utility: Sozobon C

Sozobon C looks like the new reigning king in the pd/shareware programming world although GNU C looks like it could make some waves over the next few months. A darkhorse squeezed in to take the runner-up spot as David Becker's *Auto ZeST* programming utility caught lots of attention this year.

Best Sound/Music Program or Utility: Midi Music Maker

Dave Henry's *Midi Music Maker* took top honors in this category for the second straight year. It got a little scare from *Noise Tracker* and *Musicalc* as the votes trickled in, but held on and widened its lead in the end. The only other serious contenter was *Quartet*, a relative newcomer to the category.

Best Use of Graphics in a Game: Lunacy!

Lunacy!, Rod Martin's *Tetris* clone, may have been overpowered by *Demolition Man* in the Best Game category, but came back strong to register a win in the graphics area. The graphics here clearly display one of the strengths of STOS as well as the talent of Rod. *Demolition Man* and *Poker Squared* fought it out for the runner-up spot with *Realistic Video Poker* (last year's winner) and *Computer Sorry* splitting up most of the remaining votes.

Best Graphics in a Non-Game Environment: ZeST Interface

Virus Killer took this award the first two times around, but fell in this year's balloting to David Becker's great looking (and more than a little sexy) *ZeST Interface*. *Make*A*Date* took honorable mention with *Floor Mat*, *KV Geography*, and *B/Stat* also gathering in some votes.

Most Used Program or Utility: Arc Shell

Arc Shell took its second award of the year as its ran away with the votes in this category. Runner-up *LG Selector* and Honorable Mention program *Pinhead* didn't stand a chance. And, if you weren't aware of the fact, Charles Johnson is the programming ace behind all three programs. *Desk Manager*, *FormDoIt*, and *Virus Killer* also were standing in the shadows.

Best New Program: Make*A*Date

Although we disqualified ourselves from voting for Jonathan Carroll's *Make*A*Date* program (we market the commercial version under our Artistik Design label), we were pleased when it took top honors for Best New Program. *Direct Drive* slipped by *DCTopper* for runner-up award while *Poker Squared*, *DSX*, and *DC PopBar*, also got their fair share of attention.

Best Programmer: Michael Vederman

The biggest surprise of this year's awards has to be here. Charles Johnson simply ran away with this award the last two years and we didn't expect to see anything different this time around. Well, not only did King Charles lose his crown, but he almost slipped to the honorable mention position. Michael Vederman (undoubtedly boosted by Double Click's popular Program-of-the Week series) held on throughout the voting while Charles tied CodeHead partner John Eidsvoog for the second place spot. Also raising some eyebrows was David Becker who finished a respectable 4th place in the voting. Tyson Gill and Gordon Meyer also fared well.

Category	Winner	Runner-Up	Honorable Mention
Utility:	Arc Shell(642)	LG Selector(531)	Cheetah(413)
Business/Personal:	Opus	Make*A*Date(589)/Cal(638)	B/Stat(599)
Accessory:	Cal(638)	EdHak(648)	DC Formatter(642)
Telecommunications:	Aladdin ST(689)	XYZ Modem(597)	D-Term(578)
Graphics:	PicSwitch(551)	IMG Viewer 2(555)	IMG Show(352)
Children's:	Kid Publisher(431)	KV Geography(504)	Body Shop(445)
Game:	Demolition Man(646)	Lunacy!(436)/Poker Squared(592)	
Programming:	Sozobon C(679)	ZeST Interface(565)	GNU C(277,288,290)
Music:	MIDI Music Maker(599)	NoiseTracker(594)	MusiCalc(545)
Graphics/Game:	Lunacy!(436)	Demolition Man(646)	Poker Squared(592)
Graphics/Non-Game:	ZeST Interface(565)	Virus Killer(490)	Make*A*Date(638)
Most Used:	Arc Shell(642)	LG Selector(531)	Pinhead(548)
All-Time Favorite:	Arc Shell(642)	Cheetah(403)	LG Selector(531)
New Program:	Make*A*Date(589)	Direct Drive	DC Topper(567)
Programmer:	Michael Vederman	Charles Johnson	John Eidsvoog.

* Numbers in parentheses represent CN library disk numbers.

MiNT: MiNT is Not TOS

Forefather of MultiTOS

by Jeff Weiner

This month and next, I'll be profiling one of the most interesting programs available for the Atari ST line of computers, *MiNT*. Part one, presented here, is a brief history of *MiNT*. Next month, I'll present a slightly more technical report about how *MiNT* does what it does.

What Is MiNT?

MiNT is essentially an enhancement to TOS, the Atari's operating system. It provides some Unix-like functions, like piped input and output, the ability to run some windowing software, and, of course, multi-tasking. Multi-tasking allows you to run several processes on your computer at the same time. For example, I could be editing a file and downloading a program from atari.archive.umich.edu at the same time. Neither would dominate the machine. *MiNT* would distribute the cpu time equally between the two.

The best part of MiNT would be that everything happens transparently. That is, there aren't any special functions you need to call to make the multitasking to work properly.

Where Did It Come From?

MiNT came from Eric Smith, a PhD student in mathematics at the University of Western Ontario. Those of you who regularly read USENET news know very well who Eric is. Those of you outside of the USENET community may know him as one of the people responsible for the Atari versions of *NetHack*, the dungeon/role-playing game.

At any rate, *MiNT* is an offspring of Eric's first attempts at writing a Multitasking kernal for the ST. *MTOS* came in 1987, but as Eric puts it, "The code was a mess. It wasn't buggy, but something just wasn't quite right about it." It was also very dependent on the version of TOS you happened to have. This meant it was very unsuitable for release to the public.

MTOS was abandoned in 1988 for a second version. While Eric says it was "technically better than the first," it was still quite buggy. It was abandoned in 1989.

In 1990, while porting the GNU C libraries for use with the ST, Eric again became angered by the limitations of TOS. The available multitaskers either ignored TOS completely, or else they weren't similar to unix. So, building on his previous defeats, Eric developed the basis for what we now know as *MiNT*. Initially, he used it to help him port unix software to the ST. "I called it "MiNT is Not TOS" as a pun on "GNU" (GNU's Not Unix)." Version 0.1 was dated May 18, 1990.

By the fall, several enhancements had been made, and it was up to version 0.5. Eric deemed it ready for release to the public, and sent it out over one of the USENET groups. It caught on quickly, and was soon up to version 0.6.

Currently, MiNT is up to version 0.94. It was recently licensed by Atari for use as the basis for their new *MultiTOS*, which will give us capabilities similar to those of Apple's *System 7*.

Next month, we'll explore how *MiNT* achieves multitasking on the ST, along with some other interesting features. Be certain to check out this month's CN disk library offerings! *MiNT v.94* with complete source code, ready to run binaries, and some utilities are available. Next month, some of the windowing software and other interesting applications that take advantage of MiNT's capabilities will be offered.

Current Notes ST Library

CN public domain disks are $4.00 each (10 for $35) plus $1 S&H for every 6 disks. Order from CN Library, 122 N Johnson Rd, Sterling VA 22170. (703) 450– 4761.

February 1992

640: **System Disk 1.** For 520ST owners, everything you need to ARC and unARC files.

641d: **System Disk 2.** For 1040ST/Mega owners, everything you need to ARC and unARC files plus SuperBoot and more.

642d: **System Disk Archives.** Complete archives for disks 640 and 641.

643d: **Utilities.** CartHold, Cookies, DBEyes, EDDA.ACC, EDM Shell 2.20, Pathmap 1.0, N__Desktp, Nosey, StdCat50, TLC Programs (TLC__Atr2, TLC__Book2, TLC__Form2, TLC__Fxr2, TLC__Namr2, TLC__Play2, TLC__Show2.

644d: **Write-On Demo.** PD scrolling demo of the Write On! Req 1 MB (M).

645d: **Copilot.** Runtime version of eSTeem PILOT, an authoring language for creating tutorials, drills, tests, interactive dialog, games, and simulations.

646d: **Arcade Games.** Noids V100, Demolition Man 2.0, 3__Shoots.

647: **GP Edit Demo Games.** Fully playable: Bobble, MS.Pac, and MultiGame (Worm, FireCop, Megapede, Breakout, and Setrys.)

648d: **Commercial Demos.** Data Diet, EdHak Ver 2.2, MultiDesk Deluxe, Word Search Creator, Crossword Creator II, and MIDI Spy.

649d: **Finance.** Checkbook, Stock–›Smart V2.1, MEGA–Check.

March 1992

650d: **GFA Expert.** Alternative GFA–BASIC 3 Manual, 2nd Ed. by Han Kempen, The Netherlands. 120+ pages.

651d: **Utilities.** AtariHD5, The latest official Atari Hard Drive Utilities, DiskLock, Faze, FujiMaus, JumpSTART 2.0, Mouse Boot, PinHead 2.1, and XBOOT Demo.

652d: **Utilities.** EDM Shell V2.21, LzhShell, ST ZIP v1.1, Super Boot V7.4, and Thrash.

653d: **Astronomy.** GnomPlot v4.2 and Satellite Prediction Program V4.04.

654: **21/Camels.** 21 (blackjack game for one player against dealer), Camels (whacko shoot–em up). (C)

655: **Ammotrak/Gold Seeker.** Graphics arcade games. (C)

656d: **Triples/Robot Repairs.** Games. (C)

657: **Name Brand Clip Art.** 50 product logos. (IMG)

658d: **Language Helper.** MultLang (translation between German/English words.) SpellOne (spell–checker) Abbreviator ST V11 Demo

659d: **Utilities.** 2Columns, BootTyme, DC Reserve, Edi–Util, FileTool, Fishes, FujiWatch, GoGoST42, K__Text V1.6.4, Lock, NBM, v1.2, RAM__Test, ShowMem4, SilkMouse2, StarSaver V0.50, WhatIs57

April 1992

660d: **Clip Art.** Wild West 68 IMG

661d: **Clip Art.** Military 91 IMG.

662d: **Clip Art.** Police 44 IMG.

663d: **Clip Art.** Teddy Bear 1, 30 IMG.

664d: **Clip Art.** Teddy Bear 2, 30 IMG.

665d: **Clip Art.** Teddy Bear 3, 30 IMG.

666d: **Clip Art.** 43 ESG Samples (IMN).

667d: **Clip Art.** Kids/School 69 IMG.

668d: **Clip Art.** Caricatures 95 IMG.

669d: **Clip Art.** Miscellaneous 46 IMG.

670d: **Picture Packer.** Picture compressor, converter, and a graphics editor, all in one package.

671d: **Crack-Art.** Shareware drawing program from Germany, includes many sophisticated drawing features.

672d: **Diabetic Recipes.** 125 diabetic recipes for use with the included Assistant Chef program. (C)

673d: **Portfolio #1.** PD for use with the Portfolio computer: Blackjack, LZEXE, PBAS45, PortPart, PTool, TBasic, XTerm, GuiChess, Lmine.

674d: **Uniterm 2.0e.** Best terminal program for the ST. Full featured, complete with users guide.

675d: **3 Arcade Games:** Blox, Katrix, Other Place. (C)

676: **CVG Clip Art.** 57 vector graphic pictures (CVG) for use with Calamus.

677d: **Mathematician's Helper.** Fast fourier transform grapher, Matrix manipulation, turing system analysis, calculator, and subcal.

678d: **Spice.** Circuit analysis program: analyze electrical circuits of any nature.

679d: **Sozobon C.** V1.33i, an ideal way to get acquainted with this popular language. Includes docs.

May 1992

The MiNT Collection: 680–684

680d: **MiNT Binaries.** The multitasking kernal used in Atari's upcoming MultiTOS. Includes docs and basic shell. Req at least 1 MB. Best results with a hard drive.

681d: **MiNT Sources.** The C source code for MiNT. Complete with documentation. Modify MiNT to suit your own needs.

682d: **MiNT Libraries.** libraries necessary for compiling programs for use under MiNT. Includes Sozobon libraries too.

683d: **MiNT Include Files.** Include files for compilation of programs plus a utilities section with pre compiled functions that you can link into your own programs.

684d: **MiNT Utilities.** Includes the loadable Minix file system, Allan Pratt's akputils and pstopls, and also Allan Pratt's init9akp shell.

685d: **Home Accounts 2 Demo.** Similar to Phasar, this program will organize your household finanaces and get your budget back on track.

686d: **Cyber #1.** Cyber animation sequences: the golfing tragedy and the flight of the bumblebee. Viewer included.

687d: **C-Lisp.** The English release of Lisp for the Atari ST. This is the language used by several people in artificial intelligence. Note: documentation is limited.

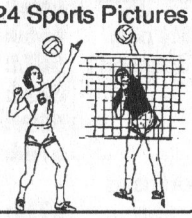
688d: **STE Demos.** BALLS–raytraced balls moving over a semi–reflective picture of a fractal. DYNAMITE good sound demo with 8 Polyphonic channels 25Khz Digi–Synth Routs in stereo. 7 Soundtracks, 20 minutes of playing time.

689d: **Aladdin V1.41.** Latest version of Aladdin, a program any GEnie user should not be without. Also includes a demo of GEnie Assistant and a tutorial on constructing Aladdin scripts.

CN #159D
50 Misc PI3

CN #160D
60 Animals, Headers, Holidays

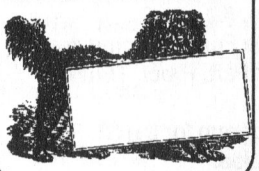
CN #247
24 Sports Pictures



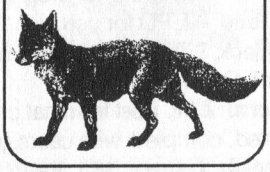
CN #248D
62 MacArt Pictures

CN #249D
50 Food Pictures

CN #355
19 IMG Mortised Cuts



CN #442D
24 Animals (IMG)



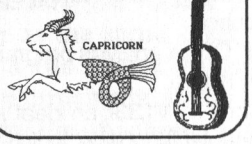
CN #454D
42 Transportation

CN #471D
37 People

CN #521D
28 Old Cars (IMG)

CN #522D
55 Cartoons (IMG)

CN #523D
49 Egypt, Music, Zodiac (IMG)



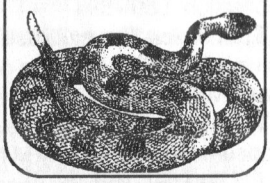
CN #524D
24 High Res (IMG)

CN #600D
20 Christmas PI3

CN #601D
20 Christmas PI3

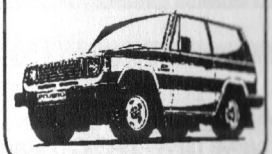
CN #602D
20 Birds PI3

CN #603D
20 Reptiles PI3

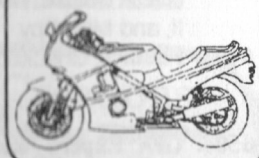


Current Notes
Clip Art
All of these disks, 2000+ images, are available on the CN DTP 44MB Syquest Cartridge.

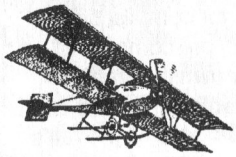
CN #604D
20 Cars PI3



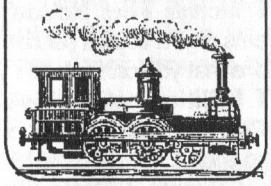
CN #605D
20 Bikes PI3



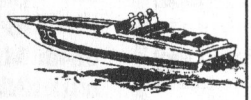
CN #606D
20 Planes PI3



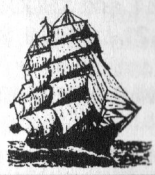
CN #602D
20 Trains PI3



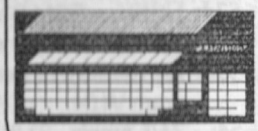
CN #608D
20 Boats–1 PI3



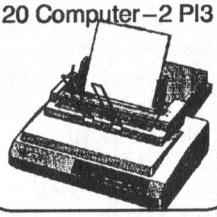
CN #609D
20 Boats–2 PI3



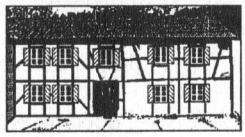
CN #610D
20 Computer–1 PI3



CN #611D
20 Computer–2 PI3

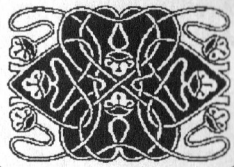


CN #612D
20 Buildings PI3



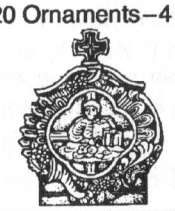
CN #613D
20 Ornament–1 PI3

CN #614D
20 Ornament–2 PI3

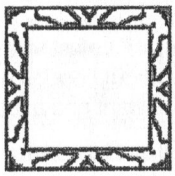


CN #615D
20 Ornament–3 PI3

CN #616D
20 Ornaments–4 PI3



CN #617D
20 Frames PI3



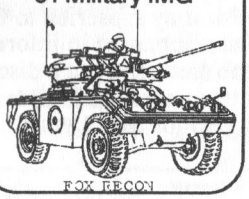
CN #618D
20 Cars–2 PI3

CN #619D
20 Signs PI3

CN #657D
50 Name Brands IMG

CN #660D
68 Wild West IMG

CN #661D
91 Military IMG



CN #662D
44 Police IMG

CN #663D
30 Teddy Bear–1 IMG

CN #664D
30 Teddy Bear–2 IMG

CN #665
30 Teddy Bear–3 IMG

CN #666D
43 ESG Samples IMG

CN #667D
69 Kids, School IMG

CN #668D
95 Caricatures IMG

CN #669D
46 Miscellaneous IMG

CN #254
Graphics Utilities
Cnv2GIF, Deg2Colr, Dega2Neo, DegaDisp, DegaSave, FontConv, IFF__SPC, Koa2Dega, Nea2DegaA, PicSw7, ShowGIF, Spc2Spu, SpecGIF4,

CN #352
Graphics Utilities
MetaView, IMG Editor, DIx Slideshow, IMG SHow, Art Gallery, ST Banner, DegaSnap, SnapShot

CN #423
Graphics Utilities
SPX, IFFCnv, SpecDeg, CvtPM, IdealIMG, PI32Mac, PM__TO__P3, Prt__IMG, B–GIF

CN #434
Graphics Utilities
ViewGIF, Invert, DEPS, CV2IMG98, Alside21

CN #579
Graphics Utilities
DMJ__GIF, Gallery, GView105, I– Floyd, Mac2IMG, View, IMG Picx(police, jets, religious)

CN #670D
PICTURE PACKER
Picture compressor, convertor, and a graphics editor all in one package.

CN #676
CVG ClipArt

CURRENT NOTES
ST Public Domain Library
CN disks are $4.00 each (10 for $35) plus $1 shipping and handling per every 6 disks. Order disks from CN Library, 122 N Johnson Rd, Sterling, VA 22170. For even faster service, use your MC or VISA card and call your orders in (703) 450– 4761.

CURRENT NOTES is pleased to announce

CN Cartridge No. 5

Desktop Publishing

$119.95

This is a Syquest 44 megabyte removable cartridge filled with clip art (2000+ images), over 100 Calamus fonts, some GEM fonts, demos of Calamus, Calamus Outline Art, Calamus SL, and PageStream, and dozens of graphic utilities. All images are either IMG or Degas ready for direct import into your favorite desktop publishing program. All of the disks you see pictured on these two pages are available on this cartridge plus more that aren't even introduced into the CN library yet. Price is $119.95 plus $4 (S&H).

(Note: price quote last month of $199 should have been $119.)

CN #432D
Calamus Fonts 1
Bodoni, Chancery, Chrome, Cursive, Dingbats, Drurylane, Gaudy, Gillia, Revue, Souvenir M, Savings, Spokane, Study, Windy.

CN #469D
Calamus Fonts 2
Advertising, Architect, Barnum, Broadwan Engraved, Casual, Celtic, Fancy Chancery, Flash, Harloe, Mouse,... Schoolbook, ST–Franc, Tiphany, Western, Windzor.

CN #552D
Calamus Fonts 3
Horstcap, Leecaps, Lucifer, Medici, Pirates, Tiempo, Zalescap + GEnie messages.

CN #556D
Calamus Fonts 4
Glip fonts (Roman, Oblique, Bold, Blod Oblique), Rockside Book, Marcella + Calendar, Acuransx, The Gunth, Gillieps.

CN #581D
Calamus Fonts 5
Bernard Tangle,Absolute, Talansty, Windsord, Upperwes, Uncialds, Recycle, Galleria, Roosthvy, Hotshot, Fundrunk, Diego, Chilpepr, Mnin6 + Fontview and

CN #631D
Calamus Fonts 6
A–Logo, Diane, 3 Hebrew fonts, Krazy, Moscow Regular, Premier Lightline, Showboat, Tiempo–2, Tiempo Light Italic + Calendar, Ext__char, Formset, F–

CN #307D
Calamus Demo
Demo of Calamus desktop publishing package. Monochrome, requires 1 MB.

CN #456D
Pagestream Demo V1.8
Demo program of SoftLogik's desktop publishing program.

CN #461
Calamus Outline Art Demo
Demo of Calamus graphics program for use in desktop publishing applications. 1 Mb, monochrome.

CN #591D
Calamus SL Demo
Complete working version of new Calamus shell (save disabled). Monochrome only.

Current Notes Atari Club List.

JOIN YOUR LOCAL ATARI CLUB! Members of the Atari clubs listed below may subscribe to CN at a discount rate of $23/year (or $42 for two years)--over 40% off the newstand price! To list your club, send in information on the club name, address, contact point, and phone numbers. For your members to receive the disciount, put a discount notice/coupon in your club newsletter, or, alternatively, send us your mailing list. For more information, call Joyce (703) 450-4761. Note: Canadian clubs are also eligible. Rates for Canadian club members are $31/year (or $58/2 years).

Abbreviations used in club names in this list:

AC	Atari Club
ACC	Atari Computer Club
ACE	Atari Computer Enthusiasts
ACES	ACE Society
ACUG	Atari Computer Users Group
ACUS	Atari Computer Users Society
AG	Atari Group
AUG	Atari Users Group
CC	Computer Club
CUS	Computer Users Society
UG	Users Group
US	Users Society

ALABAMA

Alabama ACE, Joe Moudry, PO Box 1205, Tuscaloosa AL 35403-1205 P:205-556-1781.

Birmingham ACE, Steve Yates, 1005 Candy Mountain Rd, Birmingham AL 35216.

Huntsville AUG, Levin Soule, 3911 W Crestview, Huntsville AL 35816 P:205-534-1815, B:205-722-0900.

ARIZONA

NW Phoenix Atari Connection, Paul Parks, PO Box 36364, Phoenix AZ 85067 P:602-278-2375.

Phoenix Atari ST, Michael Aubrey, PO Box 2296, Phoenix AX 85002 P:602-870-8360.

SE Valley Atari Connection, Tim Bar, PO Box 662, Chandler AZ 85224 P:602-821-1200.

Tucson Atari Central, Ray Waters, 1426 W Kilburn Rd, Tucson AZ 85705-9232 P:602-887-4196.

ARKANSAS

Little Rock Atari Addicts, Keith Steensma, 28 John Hancock Cir, Jacksonville AR 72076 P:501) 985-2131.

CALIFORNIA

A.C.A.O.C., Larry Weinheimer, PO BOX 9419, Fountain Valley CA 92708 P:714-969-9053.

A.U.G.I.E., Don Lucia, 3905 N Lugo Ave, San Bernardino CA 92404 P:714-880-3539.

Antelope Valley ACE, Craig McCardell, PO Pox 512, Palmdale CA 93590-0512 P:805-944-0821, B:805-723-0093.

Atari Anonymous UG, Todd Bane, PO Box 1433, Upland CA 91786-1433 P:714-737-4329, B:714-625-4251.

Atari Bay Area CUS, Bill Zinn, PO Box 22212, San Francisco CA 94122 P:415-753-8483.

Atari CC Encompassing Surburban Sacramento, Mark O'Connell, PO Box 1354, Sacramento CA 95806 P:916-395-8137 B:916-0428-8662.

ACES, Tara Jacobs, 21210 E Arrow Hwy, #35, Covina CA 91724-1432 P:818-331-1172.

Atari Federation, Chester Hadely, PO Box 5367, Vandenberg AFB CA 93437 P:805-733-4177.

Atari UG of the Inland Empire, Don Lucia, 3905 N Lugo, San Bernardino CA 92404 P:714-883-3547.

Bakersfield ACE, Anthony Garcia, PO Box 40203, Bakersfield CA93308 P:805-397-9566.

Bay Area AUG, Robert Kaczanowski, PO Box 4637, Santa Clara CA 95054 P:408-986-0215.

Cajon CC, Tim Adams, 639 West 36th St, San Bernardino CA 92405 P:714-882-6784.

E.R.A.C.E., Gary Martin, 1906 Avineda Del Diablo, Escondido CA 92025 P:619-489-9872.

Far East Atari ST, Dale Ellis, PSC Box 7075, APO San Francisco CA 96293.

Fresno Regional Atari Computer User Support, Tom Hancock, PO Box 379, Prather CA 93651 P:209-885-2817 B:209-251-5338.

H.A.C.K.S., John King Tarpinian, 249 N Brand Blvd #321, Glendale CA 91206 P:818-246-7286.

Long Beach ACE, Lee Curtis, PO Box 92812, Long Beach CA 90809-2812 P:213-423-2758.

N.O.C.C.C. ST-Sig, Dain Leese, 3852 Balsa, Irvine CA 92714 P:714-552-5185.

Pass Area STE, Steve Miller, 1145 W Westward, Banning CA 92220 P:714-849-7927.

R.A.M. of Ventura County, Tim McCoy, PO Box 112, Camarillo CA 93011 P:805-482-4788, B:805-987-6985.

Sacramento ST UG, Mark Warner, PO Box 214892, Sacramento CA 95821 P:916-344-1150 B:916-729-2968.

Salinas Valley ACE, Gary Klugman, 672 E. Romie Ln, Salinas CA 93901 P:408-758-4894 B:408-449-2150.

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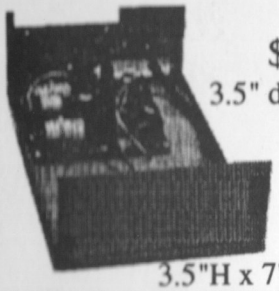

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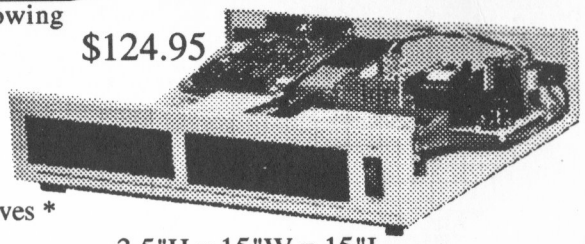

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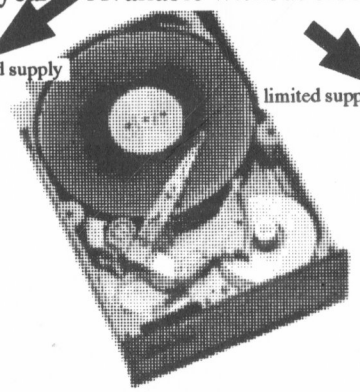

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Zoom 2400 - **$74 Zoom2400**V.42bis- **$146**
Supra 9600 v32- $269 Supra 9600 v42-$349
Zoom 9600 w/V.42bis- **$374.95**

FLOPPY DRIVES

Master 3S - $129
Master 5S (5.25") - **$199**

Hard Drive Mechanisms

ProDrive LPS 52S- 52Meg 19msec- $279
Maxtor 65Meg - $289 Maxtor 85Meg- $329
ProDrive LPS105S- 105Meg 17Msec- $369
PD170S- 170Meg 17Msec-$ 559
ProDrive LPS240S- 240Meg 17Msec-$699
Maxtor 7120S- 120Meg 15msec- $399
330Meg - $1156 425Meg- $1219
520Meg- $1289 770Meg- $1325
SQ555- 44meg removable- $349 carts- $77
SQ5110- 88meg removable- $469 carts- $125

MEMORY UPGRADES

Z-Ram - 2.5 or 4 megs - **$85**
(Board w/chips 2.5Megs- $173 4 Megs- $261)
Z-Ram/2.5- 520 ST-2.5Meg - **$75**
(Board w/chips 2.5Megs- $163)
Z-Ram/Mega II- 4Megs - **$75**
(Board w/chips- $163)
1 Meg 80ns Chips **$5.50 ea**
JRI Memory Board(uses simms)- $99
SIMMS 1meg each - $45

MISC. ITEMS

AdSpeed- $239
Adspeed STE- $249
Blitz cable w/software - **$46.95**
Cleanup ST - $25
D.E.K.A. interface- $95
Drive Master - $32
Drive extension cable 6 ft - $13.95
DVT-VCR hd backup - **$69.95**
Flashdrive Portable HD case (for portfolio)- **$139**
Hand Scanner(w/Touchup) Migraph - $269
Hand Scanner Golden Image W/TOUCHUP - **$215**
HP Deskjet 500 printer - $469
ICD Advantage Plus w/clock - **$93.77**
ICD Advantage (no clock) - **$83.77**
50pin SCSI dual drive cable - **$10**
ICD Advantage Micro (Mega's) - **$77**
Lantech Local Area Network- $299
Mega Touch Springs - $9.49

MISC. ITEMS

Monitor Master - $32
Monitor Stand (adjustable) - **$14**
Monitor Stand w/power switches - **$45.95**
Mouse Master - $26 Mouse mats - $5
Mouse (Opto-Mech. w/Deluxe paint)- **$45**
Mouse (Opto-Mechanical) - $37
Mouse (Optical)- $53.95 Mouse (Cordless)- $80
Mousestick (Gravis)- **$65**
Multi Sync Switchbox - $53.95
Panasonic KPX-1124i 24pin - $319.95
Panasonic KPX-1123 24pin - $234.95
PC Speed- $199
AT Speed(16MHZ version)- **$369**
Speed Bridge (Mega or STE) - $65
Spectre GCR(cart)- **$215**
Printer or Modem Cable - $7
Star NX1001 9pin printer - **$155**
Star NX-2420 24pin printer - **$279**
ST/time (under rom clock) - **$43**
Supercharger W/1Meg - **$419**
Synchro II - $59
TC Power (software for IBM emulators) - **$39.95**
Trackball(Kraft)- **$59**
Trackball(cordless)- **$88**
Turbo16 Accelerator - $257
Tweety Board - $27
Vidi ST - $124.95 Vidi-Chrome ST - $34.95
Vidi RGB - $109.95 Vidi Color Kit - $259.95
Z-Keys (use IBM keyboard) - **$59.95**

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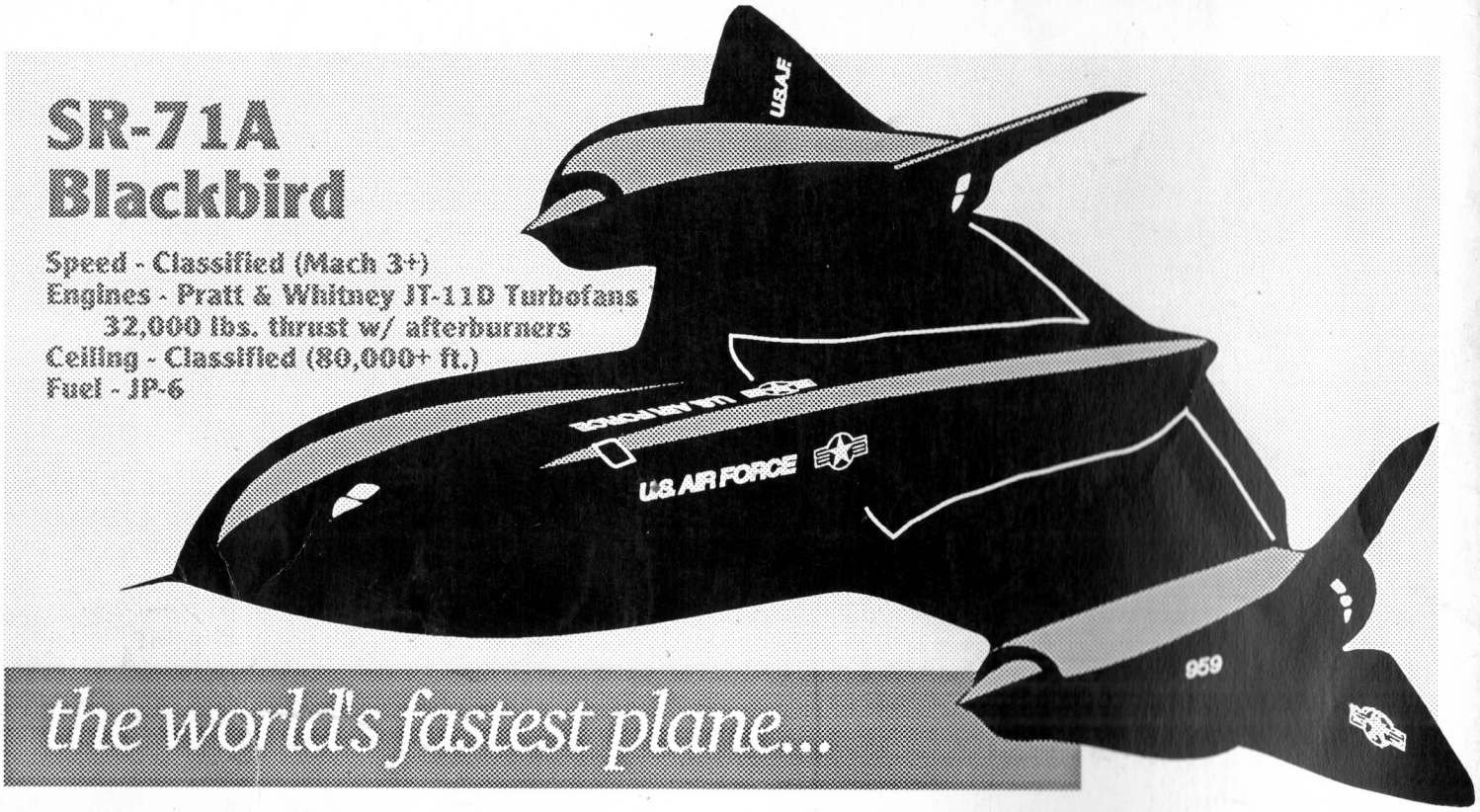

SR-71A Blackbird

Speed - Classified (Mach 3+)
Engines - Pratt & Whitney JT-11D Turbofans
32,000 lbs. thrust w/ afterburners
Ceiling - Classified (80,000+ ft.)
Fuel - JP-6

the world's fastest plane...

SST

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Introducing the fastest, most compatible, most flexible accelerator available for the Atari Mega ST: the splendiferous totally cool ***68030 SST****. With its screamingly fast 68030 microprocessor, up to 8 meg of fastRAM (to 12 meg total), asynchronous design, and special compatibility software by Dave Small, the SST is any "ST pilot's" dream...*

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68030 SST

Speed - 16 to 40 mhz asynchronous design; up to 12 times faster than a Mega ST
Engine - MC68030 Microprocessor with Caches and Burst Mode Afterburner
Ceiling - up to 12 Megabytes of RAM
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